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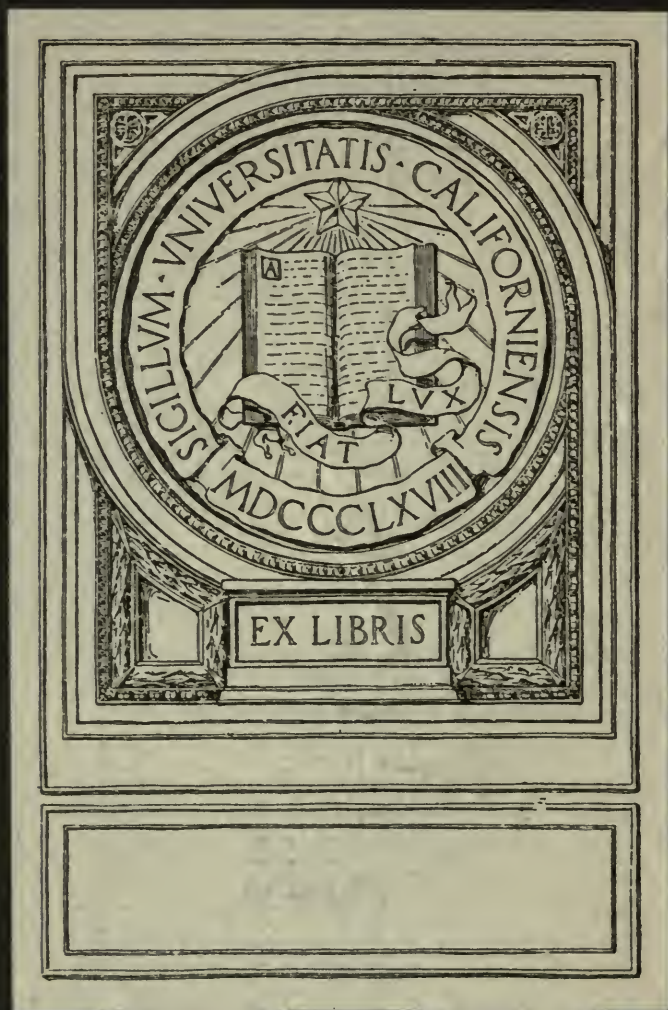
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LECTURES ON CAVALRY

BY

CAPTAIN P. T. HAYNE, jr.,
12th Cavalry,

Instructor

*Department of Military Art
The Army Service Schools*



PRESS OF THE ARMY SERVICE SCHOOLS

1915

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TO THE
ATTENTION OF

First Lecture

I HAVE two lectures and one conference in which to discuss the employment or use of cavalry. There is a good deal on this subject scattered through the F.S.R., and certain paragraphs of the C.D.R. have been assigned for conference. But what is given in both F.S.R., and C.D.R. is in general so condensed that it does not clear up the situation much unless one has a good mental picture of the situations the authors had in view. I shall try to go more into detail, so that the application of the principles given in the C.D.R. and the F.S.R. may be more clear.

The whole matter of the employment of cavalry is so little a matter of rule that it may be said there are no rules for it. In regard to some questions there are various opinions, and the details of how cavalry was handled in war to accomplish certain results are hard to obtain. But there are a number of general principles as to which there is very little question, though the methods of applying these principles may vary.

More new ideas on the subject of the employment of cavalry were brought out and put into practice in our Civil War than in any war since, and, up to the present time, there is no better source of information as to how cavalry should be handled—also, from this same war numerous examples of how cavalry should never be used.

As reconnaissance, or the getting of information, is the most important mission of cavalry at the beginning of a campaign, I shall first take up reconnais-

sance, and spend a good deal of time on it. Then discuss more briefly some of the other uses of cavalry, and finally will come to the cavalry combat.

If any one has any questions I will be glad to have them asked at any time during the lectures or afterwards.

As you all know a board of cavalry officers worked for some time on a new system of cavalry drill, to replace that which we have used for many years. The system devised by this board has finally been published as "Cavalry Service Regulations," but these Regulations are "experimental," and on June 1, 1915, every cavalry officer is to submit a report on these Regulations, with recommendations as to changes.

At the beginning of this school year the "Cavalry Service Regulations" had not been published, and the Tables of Organization published with the latest F.S.R. give the organization of the old Drill Regulations, not of the new Service Regulations. It was therefore decided by the Military Art Department to use throughout this year the cavalry organization given in the Tables of Organization and the old Cavalry Drill Regulations based on this organization.

It is prescribed that one or more brigades or divisions of cavalry will form part of a field army, and that two or more cavalry divisions may be combined under one leader. The division, as with the infantry, is the smallest unit that has artillery and technical troops permanently assigned, but it is expected that cavalry brigades will often operate detached, in which case one or more batteries of horse artillery will be attached if available, and such other troops and trains as may be needed.

At the beginning of a campaign, when the armies are still distant, the first mission that is usu-

ally assigned to the cavalry division is to get information, a mission of reconnaissance.

The F.S.R. (par. 125) say: "The cavalry division is pushed as independent cavalry far to the front, often several days' march in advance of the remainder of the field army, to drive back the covering forces of the enemy and to gain information of his dispositions, strength and movements. This is the most valuable use of the cavalry division in the opening stages of a campaign."

The employment of these cavalry brigade divisions as independent cavalry, reconnoitering far ahead of the remainder of the field army is sometimes called the strategic employment of cavalry, because the strategic dispositions made by the army commander will be based on information obtained by this independent cavalry.

General Von Bernhardi ("Cavalry in Future Wars," p. 104) objects to all attempts to prescribe anything in regulations as to the strategic employment of cavalry. He says:—"I hold all these attempts, which only hamper the free strategic employment of cavalry, as not only mistaken, but contrary to the very essence of our being."

There is nothing in our F.S.R. nor in our C.D.R. to hamper the free strategic employment of cavalry, but both agree as to the advisability of holding as much of the cavalry as possible in a strong central mass, and defeating the enemy's cavalry by the use of this mass. The reason for this plan is plain. What the commander who sends out the cavalry wants is information as to the enemy's main body, his infantry and artillery. But before finding this main body our cavalry will first strike the enemy's cavalry, and if reconnaissance is to be successful, and get this information as to the troops in rear, the hostile cavalry must be defeated.

The German F.S.R. (par. 118) say: "It is of great importance to drive the enemy's cavalry out of the field as early as possible, and to obtain a decisive moral superiority over them. All bodies of cavalry, even patrols, should therefore lose no opportunity of attacking the enemy's horsemen whenever they show themselves, provided that circumstances and their own duties allow of this. This will expedite the process of reconnaissance, and will enable it to be carried out with the certainty of success for the remainder of the campaign, and will, moreover, much facilitate the the service of protection."

This is excellent advice, but it does not mean that the cavalry commander should neglect his mission of getting information in an attempt to go after and defeat the hostile cavalry. This hostile cavalry is only of importance when it interferes with the getting of information; if it keeps out of the way the cavalry commander is justified in ignoring it and carrying out his mission of getting information. What the cavalry commander should do is to bear in mind that in carrying out his mission of reconnaissance a fight with the enemy's cavalry is bound to come, unless the enemy's cavalry is very weak or inefficient. He should, therefore, be prepared at all times for this cavalry fight, and should endeavor to eliminate the hostile cavalry as early in the game as practicable, thereby facilitating all further reconnaissance. In order to be prepared for this cavalry combat the independent cavalry is kept concentrated as much as possible, "as a mass to engage and defeat the enemy's cavalry." In the meantime, however, the getting of information does not wait for this cavalry fight, but is instead the primary mission of the cavalry, the cavalry fight being the only means for accomplishing this mission, not an end.

To show that making the cavalry fight secondary

to the mission of getting information was considered necessary in the Civil War, I will read an order from Meade to Pleasanton, commanding the cavalry of the Army of the Potomac in the Gettysburg campaign in which he emphasizes this point as if the cavalry had at times devoted too much attention to trying to defeat the hostile cavalry.

“Headquarters, Army of the Potomac,
June 30, 1863.

Commanding Officer, Cavalry Corps:

The Major General Commanding directs me to say that it is of the utmost importance to him that he receive reliable information of the presence of the enemy, his forces and his movements. His projected movement is toward the line of the Baltimore and Harrisburg road. His instructions require him to cover Baltimore and Washington, while his objective point is the army under Lee. To be able to find if the army is divided, and to concentrate upon any detached portion of it, without departing from the instructions which govern him, would be a great object. People in the country are so frightened that he must depend solely upon the cavalry for all the information he can gain. He looks to you to keep him informed of their movements, and especially that no force concentrates on his right, in the vicinity of York, to get between him and the Susquehanna, and also that no force moves on his left toward Hagerstown and the passes below Cashtown. Your cavalry is large and must be vigilant and active. The reports must be those gained by the cavalry themselves, and information sent in should be reliable.

The duty you have to perform is of a most important and sacred character. *Cavalry battles* must be secondary to this object. * * * * *

Very respectfully,

S. WILLIAMS,

(R. R. 45, page 421.)

Asst. Adjt. Genl.

This letter gives the cavalry Commander full information as to the plans of the commander of the Army of the Potomac, gives the cavalry the mission

of getting information, states what information is of most importance but leaves to the cavalry commander entire freedom as to methods employed to accomplish his mission—the only restriction being that he is to make the getting of information his mission, not the defeat of the hostile cavalry.

At this early stage of the campaign, when the enemy's cavalry is still undefeated, the advantage of using strategic patrols is apparent, and the distinction between strategic and tactical patrols is plain.

The cavalry commander has two distinct missions for his patrols. One is to get the information as to the main body of the enemy that the army commander wants in order to make his strategic dispositions. The other is to get the information as to the hostile cavalry that the cavalry commander needs in order to make his own tactical dispositions to defeat this cavalry if it interferes with the getting of information. The cavalry commander can not wait until after he has met and defeated the hostile cavalry before sending out information as to the main army in rear. So he employs the so-called strategic patrols, which avoid the hostile cavalry, avoid fighting, and by cunning and stealth try to reach the enemy's main army in rear and send back information as to it. At the same time tactical reconnoitering patrols get in contact with the hostile cavalry and keep the cavalry commander informed as to its movements.

When the meeting of the cavalry forces takes place, if our cavalry should be defeated there is small chance that the information gained by the strategic patrols will get back to the army commander, but if we succeed in driving off the hostile cavalry valuable time has been gained in starting this strategic reconnaissance and it will be quite possible to send in the information gained.

As I mentioned once before, aeroplanes should be of great value in getting the information that these strategic patrols are trying to get. And aeroplanes have the great advantage that their success is not dependent on driving off the hostile cavalry, for the information they gain can be brought back with small chance of interference.

The tactical reconnoitering patrols, sent out to get information of the enemy's cavalry, have reconnaissance as their principal mission, and are not especially charged with the duty of attacking and driving back hostile patrols as seems to be contemplated by the German F.S.R.; but they are not bound to avoid fighting on every occasion as are strategic patrols. There will be occasions when the circumstances and their mission will make it advisable for them to attack and drive back hostile patrols. This mission of driving back hostile patrols will, however, be especially assigned to the security patrols, such as the point and flank patrols of the advance guard. As far as their strength will allow these security patrols prevent hostile reconnaissance, and by beating and driving back hostile patrols whenever practicable, our patrols will not only make reconnaissance difficult for the enemy, but will also aid in establishing a superior morale for our cavalry, even before the cavalry masses meet and test their strength.

I will now leave the cavalry brigades or division of the field army for awhile and take up the divisional cavalry.

A regiment of cavalry, as you know, forms part of an infantry division. If this regiment could be kept intact when it is to reconnoiter ahead of the division it would be a great advantage, but however advantageous this might be it will seldom be possible. Under ordinary circumstances one troop is detached as part of the military police and train guard,

under the commander of trains, and it will usually be necessary to detach some troopers to do the local reconnaissance that the I.D.R. contemplate having infantry mounted scouts do. All such detachments from the cavalry should be reduced to a minimum, but some will nearly always be necessary.

When a division is serving as part of a field army and is operating in rear of the independent cavalry of the army, the divisional cavalry ordinarily forms part of an advance or flank guard, and maintains connection with the independent cavalry, in addition to performing such reconnaissance as the situation demands. But even when independent brigades and divisions of the army are in front, the divisional cavalry may operate under the direct orders of the division commander instead of being attached to a covering detachment.

A division is, however, often more or less separated from the rest of its field army, and is not operating in rear of the independent cavalry of the army. In this case the divisional cavalry performs for the division what the independent cavalry of the army does for the army, and generally operates under the direct orders of the division commander as independent cavalry. Most of the division problems that you will have here deal with a division that is not covered by the army cavalry, and it is therefore the use of the cavalry regiment as independent cavalry that you will have in division problems.

Let us now take the case of an infantry division that is operating somewhat detached from other troops, so that it is not in rear of the cavalry brigade or division of the army. The division commander makes the cavalry regiment independent, and gives it the mission of getting information of a hostile force whose approximate location is known, but of which much more detailed information is desired. The

handling of the cavalry regiment in this situation is so similar to the handling of the independent cavalry brigades or division of a field army that to understand one will give a very good idea of the other.

Of course no two situations would be handled in exactly the same way, and the method I shall try to outline is only one way of accomplishing this mission of reconnaissance, not a plan that is expected to be applicable on all occasions. But I think it may help to give in a general way what the regimental commander might do in this situation, to accomplish his mission of getting information.

In the first place the colonel would probably send one or two strategic patrols to the vicinity where it is thought the enemy's main force is. These patrols would necessarily be officers' patrols, and they would have to be of sufficient strength to send back one or two messages, and each of these messages will take at least two men. General Von Bernhardt says ("Cavalry in Future Wars," page 136) that an officer and eight men is the proper strength for such patrols in most cases. This allows the patrol leader to send back two messages, each being carried by a small patrol of three men. The message is sent by three men because it will usually have to pass through a district controlled by the enemy.

General Von Alten makes such strategic patrols an officer and ten men (Studies in Ap. Tactics), so these two authorities agree pretty closely as to the strength of such a strategic patrol. These two authors, however, disagree as to the importance of such strategic patrols. Bernhardt thinks them indispensable, and thinks they will often get valuable information and succeed in getting it back. Von Alten thinks they will fail to get information, or else will fail to get it back safely in most cases, nevertheless he sends them out in hopes they will be successful.

The use of aeroplanes will certainly make them less necessary, but they will still be valuable in many cases I think.

This is all the colonel can do at this time toward starting strategic reconnaissance, but some system of tactical reconnoitering patrols is required, to keep him informed of any troops close enough to affect tactical dispositions. In order to accomplish their purpose these patrols must be numerous, and if the colonel sends them out himself, and has them report direct to him, he will have a lot of detail to look out for, and will find it difficult, if not impossible, to keep in touch with so many patrols and back up promptly those that need assistance.

This difficulty can be avoided by sending out instead, one or more reconnoitering or contact troops, giving the troop commander instructions as to the patrolling that is desired and the direction of march of the regiment, and leaving to his judgment the details of handling these reconnoitering patrols. This reconnoitering troop starts out an hour or two ahead of the rest of the regiment, sends out such reconnoitering troops as are necessary, and provides for its own security by having an advance party in front, and such other security patrols as are needed.

The patrols sent out from this contact troop must have very clearly in mind the difference between reconnoitering patrols and security patrols, and each must know whether its mission is reconnaissance or security. Reconnoitering patrols regulate their movements on those of the enemy and do not change their routes necessarily because the troop changes its route. Security patrols on the contrary, such as the point and patrols sent out to cover a flank, must remain in constant touch with the troop and regulate their movements entirely on it. If they were to attempt to follow up the enemy they would lose connection

with the troop and might leave it unprotected from the direction that they were specially depended upon to cover.

Our troop has only three officers and 86 men as its maximum strength. Hence if it is much reduced, as it certainly will be very soon after the beginning of a campaign, a squadron would be used instead as the body to send out the reconnoitering patrols. That is why par. 860, Cavalry Drill Regulations, speaks of contact squadrons rather than contact troops. When the troop is at its maximum strength, however, as it is assumed to be in most problems, the troop is usually more nearly the strength required for this duty of reconnaissance than a squadron. It may be advisable at times to attach additional officers' patrols to a contact troop. If patrols are already out in the direction in which the troop is to reconnoiter, these would ordinarily be put under the orders of the troop commander although from some other troop, thus giving the slight additional strength required.

To keep as much of the cavalry as possible concentrated in a "central mass" is a cardinal principle, hence it would be a mistake to send out a squadron on this duty, if a troop with a few additional patrols attached could efficiently perform the duty. For a regiment to send out a whole war strength squadron as a contact squadron would be exceptional, though a brigade or division on reconnaissance duty might often send out a contact squadron of the reduced strength that most squadrons would have.

The commander of this reconnoitering troop makes no effort to keep any prescribed distance from the regiment. From time to time he sends in messages to the regiment, whether anything of importance has occurred or not, and keeps the regimental commander informed as to the movements of the troop and of the patrols sent out. The messengers

sent in also serves to keep the troop commander informed of the movements of the regiment, though any considerable change of plans in regard to the movements of the regiment would be reported to him at once, by messengers sent from the regiment. The commander of this reconnoitering troop can keep in touch with his reconnoitering patrols much more easily than the regimental commander could, and he can also back up promptly a patrol that he thinks needs assistance.

The reconnoitering troop does not necessarily march on the road that it starts out on nor keep up a continuous march. As far as practicable its march for an hour or two ahead is determined upon, then it may await reports of patrols, and based on these reports the troop commander will determine what the further conduct of the troop should be. When moving it can move rapidly, and take advantage of halts to rest and feed and water the horses. When leaving a place beyond which the march of the troop has not been previously decided upon, if there are patrols out that have not been informed as to the future movements of the troop, either a connecting patrol must be left or all patrols notified of the next place to which the troop will march.

It will not generally be practicable for contact troops to keep up communications with neighboring contact troops, and orders given them should not require this. To reconnoiter in the direction of the enemy and keep in communication with the regiment, will give the troop commander all he can do. The regimental commander, being informed of the movements of all contact troops, and in a general way of their patrols, can fill gaps that may occur, or take such other steps as may be necessary.

If the contact troop is operating in friendly territory its work is very much simplified. Information

of the enemy is more readily obtained from the inhabitants, patrols may be made smaller, and messengers get through more easily.

The commander of a reconnoitering troop must have a clear idea of the general situation, for he will be thrown on his own resources a great deal, and must also be able to determine whether the messages sent in by his patrol are important or not. He is expected to be a kind of clearing house for messages from patrols, sends in at once those of special importance, and embodies the information contained in the others in his own messages, sent in from time to time. It may happen too that a message is of such importance that it should be sent direct to the division commander, instead of to the cavalry commander, in order to save time; only by having a clear idea of the situation can the commander of the contact troop use good judgment in settling these questions.

The distance traveled by the patrols of a contact troop will necessarily be very much greater than that traveled by the troop itself. And the troop will often be required to remain out several days. Therefore the marches made by the main body of the troop should not be great, Von Bernhardt gives 25 miles as quite sufficient ("Cavalry in War and Peace," p. 37).

The amount of front that a contact troop can cover depends so much on the number of roads, the character of the country, and the information already on hand as to the enemy, that no rule would help. The German F.S.R. give ten to fourteen miles as the maximum for their squadron of 150 lances. (Par. 136.)

Our C.D.R. (par. 859) give ten miles as the approximate front to be covered by a cavalry brigade on reconnaissance duty. This would indicate that a contact troop would cover much less than ten miles, for a brigade would send out more than one contact troop, in most cases.

It will not usually be advisable to send wagons with this contact troop, for the troop will move rapidly, when it does move, and a wagon would be very much in the way. The trooper carries habitually on the horse two reserve rations and one feed of grain for his horse. If necessary the grain carried could be increased, but as the troop is well ahead of the rest of the regiment it will get first chance at whatever supplies there may be in the country, and it should usually be able to find some forage for its horses.

General Von Bernhardt, however, recommends ("Cavalry in Future Wars," p. 36) taking ration and forage wagons with a reconnoitering troop. He says the presence of these wagons will make the troop more independent in its movements, and it will not have to worry about the collection of subsistence and forage, and the admitted fact that the wagons may have to be abandoned if the enemy is encountered should not prevent a troop from starting out with wagons. This may be true when the wagons move over the good roads found in Europe, but wagons would be a nuisance to a reconnoitering troop on the roads usually found in this country, and would hamper its movements.

Of course a regiment on reconnaissance duty would not always adopt the same methods. The use of contact troops would not prevent the regimental commander from himself sending out a patrol for some special reconnaissance, though if contact troops are used all patrols except the strategic patrols would, as far as practicable, be attached to some contact troop.

Reconnoitering patrols must always be pushed well to the front, and the use of contact troops facilitates the handling of these patrols in most cases. But as the distance to the enemy diminishes the advantage of employing contact troops diminishes.

When in close contact it might be much simpler to send the patrols out direct from the regiment.

Arrangements have now been made to begin the strategic reconnaissance, to get information as to the enemy's main body of infantry, and for tactical reconnaissance to get information as to his cavalry or other troops that may be near by.

Next come provisions for the security of the regiment on the march. Our F.S.R. (par. 49-50) state that cavalry marching independently adopts formations for its advance guard similar to those used by infantry, and that a regiment at war strength should put a battalion or squadron in the advance guard if the enemy is liable to be met.

The use of one or more contact troops in front of the regiment would certainly tend to reduce the size of the advance guard needed. Also some detachments will usually be made from the regiment, as has been mentioned, in addition to sending out the contact troops. Hence the use of an entire war strength squadron as advance guard for a regiment from which detachments have been made for duty with the infantry and the trains, and from which one or more contact troops have been sent out, would be exceptional. Under these conditions one or two troops should usually be sufficient; detail for instance as advance guard the rest of the squadron from which the detachments have been made, leaving two squadrons in the main body.

Machine guns materially increase the effectiveness of a cavalry advance guard whenever it is probable that the advance guard will be used dismounted in case the enemy is encountered. As to the use of the advance guard dismounted I will have more to say when we come to the cavalry combat later. When the advance guard consists of a squadron or more it will, therefore, often be advisable to assign machine

guns to the advance guard. The use of machine guns with a cavalry advance guard is, however, not so usual with cavalry as with infantry.

When the advance guard consists of only one or two troops, to assign the machine gun troop to the advance guard would make these troops very little more than an escort for the machine guns, and would hamper the advance guard in its movements. With an advance guard smaller than a squadron it will therefore generally be better to leave the machine guns with the main body. The position of the machine gun troop in the main body is, of course, not always the same, but the most usual place would be at the tail of the regiment.

As to the distance of the advance guard from the regiment, our F.S.R. (par. 50) state that the distances in a cavalry advance guard are generally greater than in the advance guard of an infantry or mixed command. This is true because the cavalry is more mobile, because the cavalry which it expects to meet gets over ground rapidly, and because cavalry needs earlier information of the approach of an enemy. When marching along the road in column of twos or fours it can not open fire as quickly as infantry and must change its formation to make an effective charge. Von Alten goes so far as to give no distance in the order to the advance guard of a regiment of cavalry, but it would seem better to give an approximate distance in the order, with the understanding that great latitude is allowed, even more latitude than in an infantry command, for the distance can be changed readily and at any time by increasing or diminishing the gait.

The German F.S.R. state that the point of a cavalry advance guard consists of a commander and from four to eight men; these move forward by successive advances, in the same manner as a patrol.

(Par. 190.) While nothing is prescribed in our regulations as to this, it is generally accepted that this is the way the point of a cavalry advance guard should be conducted. Instead of keeping up an uniform gait, and an uniform distance from troops in rear it should usually move rapidly from one point of observation to another, the distance varying, and being only approximately maintained.

The distances in a cavalry advance guard being great and variable, the matter of keeping up connection is important. Any method that makes this connection sure is good, but there must be some positive and definite arrangement. If connection is lost and some part of the advance guard or the main body takes the wrong road serious trouble may result. It is therefore the duty of all commanders to prevent this if possible, even though some other officer is responsible for keeping up connection; this is part of the "team play" that is essential in all military operations.

The German F.S.R. (par. 190) say: "Connection on the march will be maintained, as a fundamental principle, from rear to front. Any deviation from the original direction of the march must be communicated to the rear. This makes it the duty of the commander in rear to send forward connecting files or patrols when necessary, but also makes it the duty of commanders in front to send word to the rear promptly whenever there is a deviation from the original direction of the march.

General Von Alten, in giving the order for putting a regiment on the march in a problem (Studies in Ap. Tactics, p. 102) details a noncommissioned officer and a few men to ride between the advance guard and the main body of the regiment and maintain connection. This seems to be an excellent method. The noncommissioned officer can

use his men according to circumstances, and can notify the responsible officer when there is danger of taking the wrong road, or when the distance seems too great or too small.

The commander of the regiment in a case like this should generally march with the advance guard for a number of reasons. He expects to get information from his reconnoitering patrols and the movement of the regiment will depend on these messages. All he can do in most cases will be to decide the general direction of the march and the exact route for an hour or two ahead. After that messages from the reconnoitering patrols determine the route and the rapidity of the march. Under these conditions it will be much better for him to be with the advance guard, get all messages promptly, and avoid having the main body of the regiment counter-march. Also, if the enemy is encountered, the colonel with the advance guard will be able to know the situation and issue the necessary orders much more promptly, which is a big advantage.

The question of wagons with a regiment on reconnaissance has next to be considered.

Taking first the combat train; there are four wagons in the combat train of a regiment, one for each squadron and one for the machine gun troop. These wagons carry an extra bandolier of rifle ammunition and 21 rounds of pistol ammunition for each man, and in addition certain axes, picks, shovels and litters.

For the infantry it is prescribed that in the absence of instructions the combat train of each battalion will march immediately in rear of the battalion. (I.D.R. 548.) For the cavalry there is, at present, no such provision, and the regimental commander must prescribe a place in the column for the combat train if it accompanies the regiment.

If the roads are good the combat wagons may follow in rear of the regiment until such time as it becomes necessary to issue ammunition, but it would almost never be a good plan to have the wagon of each squadron follow in rear of the squadron as is done in the infantry. Wagons with the advance guard would certainly be a hindrance to the movements of the advance guard squadron, and wagons in the middle of the main body, in rear of the leading squadron, would be an especial nuisance, whenever an increased gait is taken, delaying the squadron in rear. It may therefore be taken as usual to put the combat train in rear of the regiment whenever it accompanies the regiment on the march.

Even with good roads the combat train will have difficulty in keeping up with the regiment, and when the roads are bad it will be impracticable for them to do so. It will as a consequence often be necessary to leave the combat wagons with the field train. If it is thought that the ammunition in the combat train will be needed before the field train rejoins, the ammunition may be issued before starting out in the morning. Of course one can not always foresee the time when this extra ammunition will be needed, but to issue the ammunition increases the load on the horses, and there will be days when the combat train can safely be left with the field train without issuing the ammunition.

The field train of a cavalry regiment consists of 22 wagons, 5 carrying baggage and 17 carrying rations and forage. This is ten wagons less than was authorized by the last previous F.S.R., but is still quite a train, its road space being approximately a quarter of a mile. The field train could not keep up with the regiment on the road, so if not left with the other trains of the division it would be somewhere between the cavalry regiment and the advance guard

of the division. This is certainly not a desirable arrangement and should be avoided if practicable.

If the cavalry regiment will probably be near enough to the division for the field train to join it every day or two the field train should stay with the division trains, for the cavalry regiment should be able to get along with what it finds in the country and what the trooper carries on the horse. This would, I think, be the usual case.

If the probabilities are that the regiment will be detached so far that the field train, if left with the other trains of the division, would not be able to join for several days, it would still be better to leave the field train with the trains of the division if the prospects are good for living off the country. It will sometimes happen, however, that the regiment is detached for some distance in country where there is little to be found in the way of subsistence or forage. In this case the field train must follow the regiment, though it may be practicable instead to send forward only enough ration and forage wagons to supply the actual needs of the regiment while it is detached.

In Von Alten's study of a regiment on this duty of reconnaissance he has the field train accompany the regiment, and Bernhardt, as I have mentioned, even has the contact troops take their ration and forage wagons. But I think the excellent European roads may account for this. On our roads wagons would be a great handicap to reconnoitering cavalry. Pack mules have been much used in our service with cavalry and will be again if available.

A cavalry brigade, under our latest Tables of Organization, consists of two regiments of cavalry. The employment of this brigade in reconnaissance would necessarily be very similar to that of a regiment. Usually the brigade would be held as much

concentrated as practicable, contact or reconnoitering troops or squadrons would be sent out to coördinate the work of the reconnoitering patrols, and an advance guard would provide for local security. But such a formation would not always be best; any formation that accomplishes the mission of getting information is correct, and there are so many kinds of terrain and such varied situations for a cavalry brigade on reconnaissance that no two situations would require exactly the same methods.

If horse artillery is available, one or more batteries would be attached to a cavalry brigade sent out to reconnoiter ahead of the field army. This artillery would ordinarily march with the main body, for the advance guard of a brigade would be too small to give it sufficient protection without slighting its other duties and becoming primarily an escort for the artillery.

As a cavalry brigade ordinarily has horse artillery with it, the main body must march on roads on which wagons can keep up. Also a body as large as a brigade would move more slowly than a regiment. Hence the combat wagons would usually be taken along, going with the artillery combat train, at the tail of the column.

The larger a body of cavalry the more difficult it is to find subsistence and forage in the country. Also a cavalry brigade would probably operate at a greater distance from the infantry, making it more difficult for the field train to rejoin if left with the infantry in rear. Supplies would be obtained in the country as much as practicable, but a body larger than a regiment could not usually leave its field train with the infantry in rear.

What has been said about the cavalry brigade applies as well to the cavalry division. To keep a cavalry division concentrated, ready to meet and defeat

the enemy's cavalry, does not necessarily mean that the whole division marches on one road. A proper system of reconnaissance should make it impossible for large bodies of hostile cavalry to appear suddenly, with no previous warning. It is a decided advantage to make use of all available roads, and this also facilitates reconnaissance. Several roads can often be used, and the division is sufficiently concentrated if it is practicable to get it together promptly, when the larger bodies of the enemy are located in the vicinity by the reconnoitering patrols. When the division marches on one road the artillery regiment would ordinarily be with the main body, though a battery might be assigned to the advance guard on occasion.

The necessity for wagons is greater with a cavalry division, on account of the greater number of men and horses to be supplied with rations and forage. The Germans considered using light autotrucks to replace the supply trains of their cavalry divisions. Whether this is being tried in the present war I do not know, but it seems quite practicable if the roads are good.

Communication between the independent cavalry brigades or divisions and field army headquarters will ordinarily be by wire or radio telegraph. A field battalion of signal troops is assigned to the cavalry division for this purpose. It has radio sections using both carts and pack mules and should be able to accompany troops anywhere. Use should also be made of commercial and railroad telegraph lines wherever available.

The infantry division also has in its field battalion of signal troops a radio company and this would be used to keep up communication with the divisional cavalry and the cavalry brigades of the army if close enough. The division orders should provide

for sending one or more radio sections with the cavalry regiment whenever it is detached far enough to make this method of communication an advantage.

The commander of bodies of reconnoitering cavalry, whatever their size, must expect to act on their own initiative a great deal. Conditions not foreseen when they received their orders will be constantly arising, and it would never do to stop and ask for orders; they, on the spot, are the best able to determine what should be done in most cases. What is expected is that they will act according to their best judgment and report what they have done as soon as practicable.

For instance, if a cavalry commander has the opportunity to seize and hold a position that his knowledge of the general situation enables him to see is important, he should not hesitate because no orders on the subject have been received. The commander who gave the orders may not have foreseen this situation, and should expect the cavalry commander to act on his own initiative.

This is illustrated by the action of General Buford just before the battle of Gettysburg. General Buford, with two brigades of cavalry and some artillery, reconnoitering ahead of the army, arrived at Gettysburg just as a Confederate infantry brigade was approaching. Recognizing the value of seizing and holding the position at Gettysburg, General Buford drove back the Confederate infantry and held the position until the Union infantry arrived. He had no orders to do this but has always received great credit for the action taken.

Similarly, the commander of cavalry sent out to reconnoiter, may know that he can render valuable service by delaying the advance of a hostile force he has discovered. The fact that he has not received specific orders to delay the enemy should not prevent

his doing so if his knowledge of the general situation makes him think the delay is important. The methods he would adopt to cause the necessary delay will be left for the next lecture.

Leaving the cavalry division, brigade and regiment, I want to say a few words about the use of a squadron attached to an infantry command. When a squadron is so attached the best use that can be made of it is generally in getting information, that is in reconnaissance. There are, of course, other uses, but first consider whether there is any mission of reconnaissance that can be assigned to this squadron and then whether any other mission is of more importance; usually it can be of most importance in getting information.

The next question is as to whether it can best accomplish this mission by operating under the direct orders of the detachment commander as independent cavalry, or by working under the orders of the commander of some covering detachment; as part of the advance guard for instance. In regard to this, each case has to be decided on its merits, but it all hinges on whether the work assigned the cavalry will separate it from the covering detachment, or will keep it close enough to the covering detachment to make it an advantage to have both under one commander.

The relative strength of the opposing cavalry also enters into this. If the opposing cavalry is stronger, our cavalry can accomplish little except when closely backed up by infantry in rear, and this coöperation is best obtained by putting the cavalry under the command of the advance guard commander who is to see that it gets the needed support.

When the cavalry is strong enough to overcome the probable resistance of the enemy's cavalry, and will probably be some distance away from the ad-

vance guard it is more certain of having a free hand in reconnaissance if kept under the direct orders of the detachment commander as independent cavalry.

Whether made independent or attached to the advance guard, the cavalry squadron can best accomplish its mission of getting information if left as nearly intact as possible. Cut down to absolute minimum the troopers detached for local reconnaissance and messenger duty, then give the squadron commander his mission, telling him the results desired, but leaving to him as much latitude as possible in getting these results. This applies whether the orders to the cavalry are given by the detachment commander to independent cavalry, or by the advance guard commander to the advance cavalry.

When a squadron is given a mission of reconnaissance ahead of an infantry command its methods are similar to those outlined for a reconnoitering or contact troop. The squadron commander would, himself, send out such reconnoitering patrols as he considered necessary, giving each its mission, while an advance guard would furnish the security patrols needed, the advance guard commander attending to all the details of local reconnaissance, and security.

Second Lecture

THE last lecture was devoted almost entirely to the use of cavalry in reconnaissance, and I think this is the most important use of cavalry. It is, however, by no means its only use, and I wish today to touch upon some of the other ways in which it may aid in making a campaign successful or in averting disaster in case of defeat.

One important use of cavalry is as a delaying force. On account of its mobility it can be sent out ahead to meet an advancing enemy, and can often cause the delay that is needed to allow the troops in rear to make whatever dispositions are necessary under the circumstances of the particular situation. This is a good mission to assign to cavalry at any time when delay is important; the orders to the cavalry should specifically direct delay if the importance of delay is foreseen. And, as I mentioned in the last lecture, the cavalry commander should undertake to delay the enemy without specific orders if his knowledge of the general situation makes him think that delay is important.

When cavalry is assigned, or undertakes, the mission of delaying a superior force of infantry it is a great advantage to have artillery with the cavalry. Artillery fire will first cause the enemy to slow up and deploy, or else make a long detour, causing considerable delay. Then long range machine gun and rifle fire will cause further delay, and before the enemy gets too close the cavalry and artillery withdraws from its first position, moves rapidly to a posi-

tion already selected in rear, and there repeats the operation, gaining more time.

The decision as to when to withdraw requires good judgment on the part of the cavalry commander. If he waits too long the withdrawal will be costly, but if he leaves his first position too soon the enemy will not be much delayed, and it will be necessary to select and occupy more positions in order to accomplish the necessary delay. It must be remembered too that after the enemy has discovered that his advance is not meeting with a serious resistance, but is merely being delayed by a force of cavalry and artillery, he will not be so easily stopped next time. Therefore the first positions taken up, when the enemy does not know what he is up against, should be held as long as possible, delay being more easily caused from these early positions.

Cavalry brigades and divisions have horse artillery whenever it is available, and should be able to make effective use of it in delaying the advance of an enemy. The cavalry regiment of an infantry division has no artillery, and under many conditions is not considered a large enough force to have artillery attached. But when this cavalry regiment is sent out to delay the enemy's advance a battery or battalion of the divisional artillery could well be attached to assist in this work. Light artillery can readily keep up with cavalry if not required to do so for too long a time, and its use in this way, with a delaying force of cavalry, is justifiable whenever there is no horse artillery available.

When cavalry, without artillery, acts as a delaying force the main dependence is on long range machine gun and rifle fire. In selecting a position the essential requirements are a good field of fire at long range (that at short range being comparatively unimportant), cover for the led horses, and a good get

away. The deployment should be on a broad front, as many rifles being put in the firing line from the start as practicable. As a determined resistance is not contemplated, there is no necessity for strong supports and reserves, distribution in depth is not important. A heavy fire at long range is opened, and every effort made to create the impression that a large force occupies the position. Here, as in many other situations, cavalry needs as good a rifle for long range firing as infantry, and, personally, I think it would be a step backward to give the cavalry a carbine instead of a rifle, for a carbine is not as effective in long range firing.

Considerable delay can also be caused by use of the demolition outfits with which cavalry is equipped. No mention is made of these in the Tables of Organization, and those in the hands of troops have been ordered turned in. But it is intended that each squadron of cavalry should have a demolition outfit, and experiments are now being made with a view to determining what should be carried and the best method of carrying it. The former demolition outfit included 50 pounds of explosive, and in the solution of problems it may be assumed that each squadron has a demolition outfit, and can carry out any demolitions that could reasonably be done with 50 pounds of explosive.

We will next take up the question of screening. Par. 859, Cav. D.R., couples screening and reconnaissance together, and says: "The object of the cavalry screen is to gain information of the enemy, and to prevent the enemy from gaining information of one's own army."

Reconnaissance and screening are, however, distinct missions. They do merge into one another, and it is not always possible to draw a sharp line of distinction between them, but in any particular situa-

tion either screening or reconnaissance would be the principal mission of the cavalry, and the other would be of secondary importance.

The F.S.R. (par. 124) say that the most valuable use of the cavalry division in the opening stages of a campaign is in driving back the covering forces of the enemy and gaining accurate information of his dispositions, strength, and movements; that is in reconnaissance. They say further: "The use of the cavalry division as a screen is justified only in exceptional cases, as it is seldom effective in absolutely preventing hostile reconnaissance."

The German F. S. R. (par. 194) also treat of screening as a more or less distinct mission from reconnaissance and this is a logical way of considering the duties of the independent cavalry. The measures usually taken for reconnaissance will not entirely prevent hostile observation, though they would always make the enemy's reconnaissance more difficult.

Screening, that is, the prevention of hostile reconnaissance, has always been difficult, and the use of aeroplanes will make it still more so. There is therefore abundant justification for the statement in F.S.R. (par. 124) that this use of the cavalry division should be exceptional. There may be occasions, however, when the covering or screening of the movement of our own troops will be the most important mission of a body of cavalry.

There are numerous cases in the War of the Rebellion where the movements of armies were effectively screened, that is, the enemy remained for some time in ignorance of the movement. But generally this was as much due to lack of effective methods of reconnaissance on the opposing side as to effective screening. Also details of

the methods employed are almost impossible to determine.

When the screening of troops in rear is of primary importance, and has been made the principal mission of the independent cavalry, there are two general methods of accomplishing this mission.

What is called the defensive screen is used when some natural obstacle, such as a river or a mountain range confines the enemy's reconnoitering parties to a few roads. The crossings or defiles are held, rifle and machine gun fire being used in most cases, while strong bodies of cavalry are stationed in favorable positions, prepared to repulse any attempt of the enemy to break through. Rapid and reliable communication between the advanced posts and the strong bodies in rear must be arranged. If commercial telegraph and telephone lines are available they would be used, as well as the lines and wireless apparatus of the signal corps. Failing these a well organized messenger service, with relays when necessary, would have to be used. Reconnoitering patrols would be pushed well forward toward the enemy. (Par. 196, German F.S.R.)

When there is *no* natural obstacle to assist in stopping the enemy's reconnaissance and the enemy's cavalry is still unbeaten, what is called the offensive screen is employed. The independent cavalry will go out after the enemy's cavalry, and endeavor to drive it back and defeat it. To accomplish this the cavalry is kept as much concentrated as possible, ready to strike the hostile cavalry as soon as its approach is reported by the patrols sent out from contact troops or squadrons. A sufficiently strong force will then remain in touch with the beaten cavalry to prevent it from taking the offensive again, while patrols sufficiently strong to attack and drive back the enemy's patrols are sent

forward on all roads. These patrols would be especially charged to see that hostile patrols that had gotten through were not allowed to get back with information.

The offensive screen is based on the theory that if you can decisively defeat and drive back the main body of the enemy's cavalry and keep it back his patrols can be kept from getting information.

This does not mean that cavalry inferior in strength to the enemy's cavalry could do no screening. The enemy's small reconnoitering parties can still be driven back wherever encountered.

Such screening would not be effective against an aggressive force of cavalry, for it could break through the screen, but while we try to arrange for the enemy's acting always with good judgment, he also often makes mistakes and may fail to make use of his superiority. In this situation also, infantry may be detached to operate with the cavalry, by holding supporting points on which the cavalry may fall back without disclosing the main forces of the army.

Where the terrain is such that the general plan of the defensive screen can be employed it is very effective and would usually be employed. But it is not always a matter of choice—use the method best suited to conditions and that is all there is to it.

This matter of having to screen emphasizes the importance of decisively defeating the enemy's cavalry as early in the game as practicable, for with that done all further work of screening or reconnaissance is much simplified.

The general plan for screening is not radically different from the plan for reconnaissance, and the two duties naturally overlap, but many incidents that come up would be handled quite differently when screening is the mission of most importance.

Whether the mission of the cavalry has been reconnaissance or screening the two main armies, divisions, or detachments, as the case may be, will eventually get so close together that there is no place between for cavalry.

The independent cavalry brigades and divisions of the army remain in front of the main body as long as they can be of use in covering their own troops and harassing the enemy, then they clear the front and take position on a flank. The divisional cavalry now continues its activities in getting information of the enemy and preventing the enemy from getting information, but finally it also withdraws to a flank. Reconnaissance between the two armies is now carried on by the infantry, but the cavalry is not out of the game by any means.

At one time the bulk of the cavalry of an army was often held in rear of the center, as part of the general reserve during a general engagement. There may still be occasions when this would be a proper use of cavalry, but generally the place for the cavalry is on a flank of the line instead of in rear of the center. This is recognized in the F.S.R. of most armies. The flank is a vulnerable part of the line, and the cavalry can be used effectively on a flank and still, on account of its mobility, be available to reënforce other parts of the line if necessary.

The commander of the army, or of the division in the case of divisional cavalry, should if practicable decide which flank the cavalry is to take position on, and send the necessary orders. But often the commander of the cavalry must make this decision himself, and should not hesitate to do so in the absence of orders. Sometimes there is no choice as to flanks, the cavalry can readily get to one flank and only with great difficulty to the other, but when there is a choice the one where the decisive action is ex-

pected to take place should be chosen, other things being equal. That is, in an offensive action the cavalry should usually be on the side on which the enveloping attack is to be made; on the defensive the cavalry should usually be on the flank which it is thought the enemy will attempt to envelop. This is the flank on which the cavalry can best "aid and support a flanking force of infantry, or oppose a flanking movement on the part of the enemy" as the Cavalry D. Reg. express it. If reënforcements for the enemy were expected from some direction the cavalry would naturally withdraw to a flank from which it could watch for and delay these forces. The other flank must also be protected, and some of the cavalry must withdraw to it, but it would usually be a mistake to divide the cavalry in half, sending half to each flank. Keep it concentrated as much as possible, detaching only what is absolutely necessary.

The character of the ground on the two flanks would of course have some influence, but with average ground cavalry can operate in some way and the mere fact that the ground on one flank was more suited to mounted action would not ordinarily cause the cavalry to select that flank if the decisive action were expected on the other flank.

This use of cavalry on a flank during an infantry combat applies in general to bodies of cavalry of all sizes. When the attack order is issued the question to be decided with the cavalry is usually as to which flank it should retire to, and the same principles govern in deciding this whatever the size of the command. I don't mean to say that this is the only question to be decided as to the cavalry, but it is generally one of the questions that must be decided.

While commanders in the field do sometimes neglect to send orders to the cavalry at the beginning of an engagement, leaving the cavalry commander

to use his own judgment, this should not be done. The commander of the whole force is the only one who knows what his plans are, and how the cavalry can best aid in carrying out these plans, so he should issue the necessary orders, for the cavalry as well as for the rest of the troops.

It is more than likely that the enemy's cavalry will also withdraw to a flank, and here there will be another cavalry combat unless the enemy's cavalry has been so decisively defeated before that there is no more fight left in it. In order to prevent this hostile cavalry taking a hand in the main fight, and in order to get it out of the way so that our cavalry can exercise some influence on the main fight, it is necessary to attack and defeat it as promptly as possible. Having defeated it, it must be pursued and driven from the field or to the protection of its own infantry; but as promptly as possible after the cavalry fight the cavalry must be assembled and made ready for any action that offers a chance of aiding in the main fight. It will often be necessary to take "A Position in Readiness" until reconnoissance determines what further action can be taken.

The position taken must be as secure as practicable from the view and fire of the enemy, but must be one from which immediate action can be taken when the time comes.

For the cavalry to take a position in readiness and there await orders would be entirely wrong. The cavalry commander must try to find some way to get in the game and usually will be able to. And in the meantime he prevents all hostile reconnoissance, while his own reconnoissance is constant.

Artillery, at the present time, goes into action some distance in rear of the infantry firing line, often on a flank, and the detail of special supports for artillery is avoided as much as possible. In these

covered positions it is hard to locate and put out of action. An enterprising cavalry commander after driving in the opposing cavalry, should find opportunities to locate batteries near the flanks and put them out of action.

If the cavalry, with horse artillery, can drive in the enemy's covering detachments and strike his flank or rear the moral effect is great, and may give just the additional impulse needed to decide the day. The presence of horse artillery with the cavalry in such operations against the enemy's flank and rear is so important that the regulations of some armies prescribe that the horse artillery will remain with the cavalry divisions during a general engagement.

Balck says: "Artillery is indispensable to a cavalry division when the latter is charged with the task of operating against the flank and rear of the enemy and of keeping hostile reënforcements away from the battlefield." And the German F.A.D.R. say: "The batteries assigned to the cavalry remain with it in battle, as they are indispensable to that arm during and especially after the battle, in accomplishing the special tasks with which it is charged. But the cavalry leader should carefully consider whether the tactical situation does not require that the batteries be used in conjunction with the rest of the artillery." (Balck, Vol. II, p. 476.)

The battle of Winchester, Sept., 1864, and the battle of Nashville, in December of the same year, give such excellent illustrations of the use of cavalry against the enemy's flank and rear in a general engagement that I will read a short account of what happened. The cavalry was used in one case mounted, in the other dismounted, and in both battles its use on the flanks exercised a decisive influence on the results.

At the battle of Winchester, Sept. 19, 1864, the

cavalry divisions of Merritt and Averell, under Torbert, operated on the right flank of Sheridan's army and their work is described as follows by Sheridan:

"To confront Torbert, Palton's brigade of infantry and some of Fitzhugh Lee's cavalry had been left back by Breckenridge, but with Averell on the west side of the Valley Pike and Merritt on the East, Torbert began to drive this opposing force toward Winchester the moment he struck it near Stephenson's depot, keeping it on the go till it reached the position held by Breckenridge, where it endeavored to make a stand.

"The ground which Breckenridge was holding was open, and offered an opportunity such as seldom had been presented during the war for a mounted attack, and Torbert was not slow to take advantage of it. The instant Merritt's division could be formed for the charge it went at Breckenridge's infantry and Fitzhugh Lee's cavalry with such momentum as to break the Confederate left, just as Averell was passing around it. Merritt's brigades, led by Custer, Lowell and Devieu, met from the start with pronounced success, and with saber and pistol in hand literally rode down a battery of five guns and took about 1,200 prisoners." * * * *

"Early tried hard to stem the tide, but soon Torbert's cavalry began passing around his left flank, and as Crook, Emory and Wright attacked in front, panic took possession of the enemy, his troops, now fugitives and stragglers, seeking escape into and through Winchester."—(Memoirs Vol. II, page 26.)

At the battle of Nashville, Dec. 14-15, 1864, Wilson's cavalry corps was the right flank of Gen. Thomas' enveloping attack and finally got in rear of the enemy's left. The finale of this is thus described by Colonel Henry Stone of General Thomas Staff, an eye witness: "Hatch's division of

cavalry, dismounted, had also pushed its way through the woods, and had gained the tops of two hills that commanded the rear of the enemy's works. Here, with incredible labor, they had dragged; by hand, two pieces of artillery, and just as McMillen began his charge, these opened on the hill where Bates was, up the opposite slope of which the infantry were scrambling. At the same time Coon's brigade of Hatch's (cavalry) division with resounding cheers charged upon the enemy and poured such volleys of musketry from their repeating rifles as I had never heard equalled. Thus beset on both sides, Bates' people broke out of the works, and ran down the hill toward their right and rear as fast as their legs would carry them." (B and L of the Civil War, Vol. IV, p. 463.)

During a general engagement the cavalry is usually on a flank, or else operating against the enemy's flank and rear, and this makes the keeping up of communication with army headquarters important. The cavalry commander must keep himself informed as to the tactical plan of the army commander and the progress of the fight, and must keep the army commander informed as to what the cavalry is doing. This is best accomplished by the use of "information officers" sent to army headquarters and to nearby troops. These information officers should make full use of the available telegraph facilities, and also of messenger. The use of these information officers will enable the cavalry commander to coöperate more effectively with the rest of the army, but having this method of communication should never cause him to wait for orders he must assume the responsibility of taking any action that promises to aid the general plan.

Pursuit

From its position on the flank during a general engagement the cavalry is best able to take up the pursuit in case of victory. History furnishes very few examples of effective pursuits, but many engagements where all who read can see that an energetic pursuit would have changed a retreat into a panic, and would have done as much for the success of a campaign as several battles without pursuit after victory. One reason why the pursuit that might accomplish so much is not made is because most of the victorious army is as much exhausted and demoralized as the defeated enemy. But there are nearly always some cavalry and horse artillery and some bodies of intact infantry that could begin the pursuit at once and they should by all means do so.

The ideal pursuit is by infantry and artillery straight from the rear while all available cavalry and horse artillery move out on a parallel road to harass the retreating enemy in flank, get in front of him and stop him if possible and use every effort to prevent his reorganizing. If no horse artillery is available light artillery should be used to accompany the cavalry, for artillery is almost indispensable.

Patrols must keep in constant touch with the enemy, and contact troops or squadrons can often be profitably employed here as in the reconnaissance before the battle.

A straight pursuit from the rear without making use of parallel roads to bring the enemy to a stand is not nearly so effective. If no infantry is available to take up the pursuit at once the cavalry must if possible pursue both from the rear and on a flank, for the pursuing bodies in rear are necessary, but can readily be stopped by a rear guard if no force is moving on the flank.

The cavalry commander does not wait for orders to pursue, for time is too valuable. He organizes a pursuit at once and then reports what he has done and should be given further orders. For this reason it is an advantage to leave the horse artillery with the cavalry division during a general engagement unless it is urgently needed elsewhere, for cavalry without artillery is not nearly so effective in pursuit. The crisis in the battle does not come entirely without warning, and the cavalry commander should be able to have his cavalry and horse artillery ready to take up the pursuit at once when the enemy's retreat begins, giving him no time to reorganize.

As to covering a retreat in case of defeat the German Regulations give the following:

"Should the issue of the battle prove unfavorable the cavalry must strain every nerve to facilitate the retreat of the other arms. It is just in such cases that they must assume a relentless offensive. Repeated attacks on the flanks of the pursuing troops will produce the best results.

"Even temporary relief for the retreating infantry and a short gain in time may avert utter defeat. The cavalry which effects this, will, though it gains no victory, retain the honors of the day."

Bernhardi says that here all the essentials are set forth in compressed form and adds, "Continual efforts must be made to confront the enemy, and to attack him whenever possible with cold steel. Defensive fire tactics, however, will of course be employed whenever circumstances demand such action."

The Unión pursuit after Shiloh was stopped by Forrest's cavalry taking the offensive, making a mounted charge, just as Bernhardi suggests. General Sherman, who commanded the pursuing column, composed of cavalry, infantry and field artillery, describes this charge and its effect in his report as

follows: "The enemy's cavalry came down boldly at a charge, led by General Forrest in person, breaking through our line of skirmishers when the regiment of infantry, without cause, broke, threw away their muskets and fled. The ground was admirably adapted for a defense of infantry against cavalry, being miry and covered with fallen timber.

"As the regiment of infantry broke, Dickey's cavalry began to discharge their carbines, and fell into disorder. I instantly sent orders to the rear for the brigade to form line of battle, which was promptly executed. The broken infantry and cavalry rallied on this line, and as the enemy's came to it, our cavalry in turn charged and drove them from the field. * * * * *

"The check sustained by us at the fallen timber delayed our advance, so that night came upon us before the wounded were provided for and the dead buried, and our troops being fagged out by three days' hard fighting, exposure and privation, I ordered them back to their camps, where they now are."—(R.R. 10 p. 639.)

This ended the only attempt to pursue after Shiloh. A single charge, over unfavorable ground, stopped all pursuit and solved the problem of covering the retreat, although the charging cavalry was eventually stopped and driven from the field.

General Forrest proved conclusively that a bold charge at the right moment may put a complete stop to the enemy's pursuit after a defeat; but often dismounted fire action can more effectively cover a retreat.

To make use of the nearest suitable position, cause as much delay as practicable by fire from rifles and horse artillery then mount and fall back rapidly to another position would in many cases cause the pursuers enough delay to let the infantry get well on

the road. General Wilson, who commanded the pursuing Union Cavalry after the battle of Nashville, gives the following description of such action by the Confederate cavalry covering Hood's retreat:

"Hetcher's column had not gone more than two miles when its advance, under Colonel Spalding, encountered Chalmer's cavalry strongly posted across the road behind a fence rail barricade. * * * *

"The gallant Confederates were driven in turn from every fresh position taken up by them, and the running fight was kept up till near midnight. Chalmers had, however, done the work cut out for him gallantly and well. He was overborne and driven back, it is true, but the delay which he forced upon the Federal Cavalry by the stand he had made was sufficient to enable the Confederate infantry to sweep by the danger point that night, to improvise a rear guard, and to make good their retreat the next day."—(Bat. and Lead. of the Civil War, Vol. IV, p. 469.)

Cavalry is not only used effectively in covering a withdrawal from action, before a regular rear guard is formed, but is also an important part of the rear guard when one is formed. The commander of the retreating force organizes a rear guard as soon as practicable, and this rear guard should be strong in cavalry because cavalry is valuable in keeping the rear guard commander informed as to what the enemy is doing and also in delaying the pursuit. On account of its mobility the cavalry can move rapidly from one delaying position to another, and it is also best able to protect the flanks. With a force no larger than a division all the available cavalry should usually be assigned to the rear guard. There are exceptions to this, as for instance when a flank guard also must be detailed and needs cavalry, but the use

of cavalry independently with a small command retreating is exceptional.

When a field army retreats, all the divisional cavalry is usually assigned to the rear guard, but not necessarily all of the cavalry division. If the enemy has a force of cavalry in pursuit this pursuing cavalry will probably attempt to move by some parallel road to head off the retreat and harass the flanks of the retreating force, and the cavalry division of the retreating force can sometimes be best employed if sent out independently against this pursuing cavalry.

Raids

So far as I have been able to determine raids by cavalry were never thought of before the War of the Rebellion. At any rate that war gave them a prominence they never had before.

Raids are defined in the Cavalry Drill Regulations as isolated independent cavalry operations, conducted with secrecy, by rapid marches, usually avoiding general engagements. Their objects are various, but operations against the enemy's line of communications and depots and sources of supply are most usual.

Sometimes reconnaissance as a mission for the cavalry may be combined with operations against the enemy's communications and supply system in rear of his army. The order for Stuart's "Chickahominy Raid" illustrates this. At the time this order was issued General Lee had just taken command in the field and was contemplating bringing Jackson's army from the Shenandoah Valley to take the offensive. It is therefore evident that the getting of information was important, but interference with the enemy's supply system was considered of sufficient importance to be assigned also as a mission

for the cavalry. The order, which was in the form of a letter, was as follows:

Headquarters, Dobbs Farm,
June 11, 1862.

General J. E. B. Stuart,
Commanding Cavalry:

General: You are desired to make a scout movement to the rear of the enemy now posted on the Chickahominy, with a view of gaining intelligence of his operations, communications, etc., and of driving in his foraging parties and securing such grain, cattle, etc., for ourselves as you can make arrangements to have driven in. Another object is to destroy his wagon trains, said to be daily passing from the Piping Tree Road to his camp on the Chickahominy. The utmost vigilance will be necessary on your part to prevent any surprise to yourself, and the greatest caution must be practiced in keeping well in your front and flanks reliable scouts to give you information. You will return as soon as the object of your expedition is accomplished; and you must bear constantly in mind, while endeavoring to execute the general purpose of your mission, not to hazard unnecessarily your command, or to attempt what your judgment may not approve, but be content to accomplish all the good you can, without feeling it necessary to obtain all that might be desired. I recommend that you take only such men and horses as can stand the expedition, and that you use every means in your power to save and cherish those you do take. You must leave sufficient cavalry here for the service of this army, and remember that one of the chief objects of your expedition is to gain intelligence for the guidance of future movements.

Information received last evening, the points of which I sent you, leads me to infer that there is a

stronger force on the enemy's right than was previously reported. A large body of infantry, as well as cavalry, was reported near the Central Railroad.

Should you find upon investigation, that the enemy is moving to his right, or is so strongly posted as to make your expedition inopportune, you will, after gaining all the information you can, resume your former position.

I am, with great respect, your obedient servant,

R. E. LEE,

General.

(Reb. Rec. 15, p. 590.)

This letter is not in the brief form that we adopt for field orders, but it states clearly what is the mission of the cavalry, and specifically authorizes the cavalry commander to exercise his own good judgment in carrying out this mission. This we expect a cavalry commander to do in all such operations.

General Stuart successfully accomplished both missions assigned him; he obtained the desired information and destroyed and captured large quantities of stores, losing only one man on the expedition.

As to the advisability of sending cavalry in rear of the enemy's army solely to operate against his lines of communication opinions differ. The Germans do not favor such "raids" as is indicated by the following extracts from the German Regulations:

"Enterprises of long duration by large bodies of cavalry against the enemy's lines of communication separate them from their principal duties. Such raids are to be undertaken only when cavalry is redundant. Sufficient ammunition and supplies must be arranged for." (Par. 527.)

"Attempts on the more distant hostile communications may produce valuable results; but they must not distract the cavalry from its true battle objec-

tives. In the event of an engagement, coöperation with a view to victory must be the watchword of every formation, whether great or small." (Par. 395.)

There is no doubt that this view is sustained by a number of raids during the War of the Rebellion, the cavalry being separated from its principal duties while engaged on several raids. It is generally conceded that Stuart's cavalry would have been of much more value to Lee in the Gettysburg campaign if it had stayed with the army instead of going on a raid; and Wilson's raid, June, 1864, accomplished very little, was accompanied by heavy losses and Wilson himself admits that it "ended in disaster." ("Under the Old Flag," Vol. I, p. 481.)

Bernhardi disagrees with the German Regulations saying: "The importance of such raids in modern war should not therefore, in my opinion, be underestimated. They are capable rather of exercising enormous influence on the course of events." And again, after explaining how dependent a modern army is on its supply, especially of ammunition, he says "I hold therefore that such circumstances render a disturbance of the rear communications of an army an important matter."

"It will often do the opponent more damage, and contribute more to a favorable decision of arms than the intervention of a few cavalry divisions in the decisive battle itself." ("Cavalry in Future Wars," pp. 92-97.)

That the results obtained may sometimes justify the absence of the cavalry from the vicinity of the army and the risks involved is illustrated by several successful raids in the War of the Rebellion, from which practically all our information in regard to successful raids comes.

In December, 1862, the destruction by Forrest of the railroad north of Jackson, Tenn., and by Van Dorn

of the depot of supplies at Holly Springs, Miss., put a complete stop to Grant's advance on Vicksburg, causing him to fall back to the Memphis and Charleston railroad, to get supplies from Memphis. (R.R. 24, p.p. 477, 481, 503, 592.)

After the battle Murfreesboro or Stones River, Dec. 30-31, 1862, the long delay that Rosecrans made before advancing was principally due to the raids made by Morgan's, Forrest's, and Wheeler's cavalry against his communications. Rosecrans would not move until he could organize a mounted force strong enough to prevent these raids. (R. R. 29, 34, 35.)

In July and August, 1862, the operations of Forrest's and Morgan's cavalry against Buell's communications, when Buell was advancing against Bragg at Chattanooga, were so successful that a commission ordered to investigate and report upon the operation of Buell's army found that these raids prevented the accomplishment of Buell's mission. (R. R. 22, p. 9.)

In future wars there will undoubtedly be times when raids against the enemy's communications will get great results, and if the enemy knows that such raids are attempted he is bound to weaken his fighting force by detaching heavy guards to protect his trains. The fact that the Confederate cavalry was always looking for a chance at the Union supply service accounts for the heavy guards usually detailed to protect the Union trains in the Civil War. But the telegraph and telephone facilities of the present day, as well as the use of aeroplanes, will make it very difficult to prevent the whereabouts of a raiding force from becoming known, and it will be correspondingly easy to order out troops promptly to cut off any raiding force that is discovered and reported. As a consequence a raiding force is certain to run a big risk of being cut off and destroyed, or else very much demoralized by the forced marches it must

make to avoid destruction. This, as well as the fact that cavalry is always needed with the army to get information, must be carefully considered before ordering a raid against the enemy's communications. If the probable damage to the enemy fully justifies the risk taken and the absence of the cavalry, order the raid, otherwise keep the cavalry with the army.

In operating in rear of the enemy against his communications, the main dependence for safety must be on secrecy and moving quickly; hence the raiding force must be very mobile, as small as practicable, and must take along little or no impedimenta. But it must be strong enough to overcome the guards it will certainly find protecting the enemy's supply service, otherwise it can accomplish nothing. The strength of raiding forces in the Civil War varied from a few hundred to more than 10,000, which would indicate that there is no rule to help us determine the proper strength.

Our C.D.R. (par. 856) mention the release of prisoners as an object for cavalry raids, but the complete failure of the two great raids undertaken for this purpose in the Civil War hardly encourage such expeditions.

Kilpatrick attempted to affect the release of prisoners from Richmond in February and March, 1864, but accomplished nothing, and Stoneman, who attempted the same thing at Macon, Georgia, in July and August of the same year, not only failed to release any prisoners but was himself captured, with part of his raiding force.

Third Lecture

THIS talk today will be on the general subject of the cavalry combat, and I will first take up the action of cavalry against cavalry.

In discussing the employment of cavalry I have endeavored to bring out the fact that there will be numerous cavalry fights as incidents to every campaign in which the opposing sides have cavalry; beginning with the meeting of the patrols of the reconnoitering cavalry, and not ending until one or the other army has been not only defeated but pursued and if possible annihilated. There will of course be fights between cavalry and the other arms, but the combat of cavalry against cavalry will always be with us unless the cavalry of one side is so hopelessly defeated that it gives up entirely all attempt to perform its functions.

Cavalry has two methods of fighting, mounted when its main dependence is on shock, supplemented by the saber or pistol, and dismounted when it uses rifle fire very much as infantry. The use of the rifle mounted is so rare that it need hardly be considered.

There are from time to time discussions as to whether cavalry should depend on the mounted charge or on dismounted rifle fire. When these discussions are analyzed it will generally be found that the question in dispute is as to which will probably be used most, the mounted charge or the dismounted firing line. This question we do not have to decide in the solution of any problems here. The cavalry is trained to fight mounted or dismounted, and each problem

gives a concrete case in which a decision has to be made as to which method of employment will give the best results in that particular situation only.

I wish to call attention to a few points in this connection however. The American cavalry in the War of the Rebellion made such effective use of dismounted fire that the cavalry of all nations gradually adopted the rifle or carbine as part of the cavalry armament and all now contemplate the use of dismounted fire. But none of the officers prominent as cavalry leaders in the War of the Rebellion has ever advocated doing away with the saber and depending on dismounted rifle fire only. On the contrary several of them, notably General Wesley Merritt, have written strongly against any such idea. And the mounted charge was used more toward the end of the war than near the beginning.

The British in the Boer War had the dismounted fire of horsemen used so effectively against them that the value of rifle fire for cavalry must have been impressed on them. They have mounted infantry, to supplement the work of their cavalry, but they have not done away with the saber, and they still count on the mounted charge.

Balck, who has made a study of cavalry tactics as well as infantry, states that the German cavalry in the Franco-Prussian War found it necessary to arm themselves with rifles, and he admits that cavalry may use their carbines fifty times before they use their lances once. But he still thinks the cavalry charge important, and doesn't even suggest its being a thing of the past.

We do not know yet what changes will be made in the employment of cavalry as a result of the present European war, but we do know that up to the time of this war no European nation thought the cavalry charge a thing of the past. The French Cav-

alry Drill Regulations, re-written shortly before this war, contained this in regard to the mounted charge:

“The mounted charge is the principal method of fighting employed by cavalry. * * * *

The combination of fire action and the mounted charge are characteristic of cavalry action. * *

The real cavalry spirit does not consist in waiting for a suitable opportunity for a mounted charge; it carries with it a spirit of enterprise and participation by any or all means of fighting, either on foot or mounted, or by a combination of both, in assisting the other arms in their endeavor to defeat the enemy.”

The Cavalry Drill Regulations of almost all European nations contain principles similar to what I have just read from the French Regulations and this has been incorporated in our experimental “Cavalry Service Regulations.”

Therefore, when an officer takes it upon himself to discard the mounted charge entirely, or even to pay little attention to it, on the theory that it is a thing of the past, he is going squarely against the plainly expressed opinion of the War Departments of all nations, including our own. And he is going against the expressed opinion of the cavalry officers who took part in the combats on which only he could base his own opinions. Whatever may be the opinion of an officer as to the *number* of opportunities that will probably occur in war for the mounted charge he must, in the handling of cavalry, make full use of the opportunities that do occur. To fail to do so because he thought that such opportunities *seldom* occur would be as much a mistake as for a mechanic to fail to use a handy tool because he thought he would not often find use for this tool.

There is an Arab proverb that victory is gained, not so much by the number killed as by the number frightened. This is quite applicable to the cavalry

charge. The loss on both sides may be slight as a direct result of the actual charge, but when you get the other side on the run the loss is all on his side and should be great. The morale is always with the side that shows a determination to close with the enemy, don't let your opponent get the morale on you by showing this determination while you appear to want to keep away from him. And there is no more effective way of showing a desire to get at him than by going at him at a gallop with drawn sabers.

A great advantage that the mounted charge has over dismounted fire fight, when either has a good chance of success, is that a decision is gained very much more quickly by the mounted charge, and usually with a much smaller loss for the successful side. Time is always an important element in cavalry operations, for mobility is an essential quality of cavalry, and it is certainly an advantage to get the combat settled as quickly as possible.

To accomplish anything in reconnaissance and the other important independent operations of cavalry the troops must push ahead and keep going. Let the cavalry once demonstrate that they can ride over the opposing cavalry and they will be much more aggressive in their action. On the other hand, let them once get the idea that they are helpless on a horse and must dismount every time an enemy approaches and they are bound to become more timid in their movements, and to be outclassed by the cavalry that can not only fight dismounted but also ride them down when an opportunity occurs. The belief that he can, on occasions, ride over the enemy's cavalry is as necessary for the cavalryman as the belief by the infantryman that he can, when necessary, use his bayonet effectively to drive out an enemy who will not be driven out by fire.

In any given situation, therefore, where it has been decided that an attack is proper, one should first see if a mounted charge has a reasonable chance of success and will accomplish the mission. If it will, make the charge. Dismount to fight on foot only when it appears that a mounted charge would not succeed or would not accomplish the mission of the cavalry.

No rule can be given for determining when a mounted charge has a good chance of success. In determining this question in the solution of problems the probable morale of the enemy must be considered, and it cannot be assumed that his morale is poor unless there is something to indicate it. But remember that in actual service this would be known at times and mounted charges could be made that would never succeed against the good troops that we usually assume that the enemy has in map problems.

When two cavalry forces meet it may appear at first glance that if one side dismounts and the other side charges the advantage would be with the dismounted line. But when you dismount the other man is not going to charge straight at you and let you shoot him up. He can either disappear temporarily from your front, and still be ready to prevent your further mounted work, or he can dismount a few men to hold your firing line and with the remainder attack you in flank or rear. If your mission is offensive, as it usually is for cavalry, you want to get rid of this opposing cavalry and you cannot do so without the use of mounted action, alone or combined with fire action.

Of course there will be many situations where dismounted fighting only can be used, and many others where a combination of mounted and dismounted will get the best results. The larger the cavalry command the less chance there is for it to use shock action alone, but the more chance there is

for it to employ a combination of fire and shock action.

Use fire action or shock action or a combination of the two, in the way that will best accomplish your mission, but never fail to consider the mounted charge, for where it *can* be used nothing is so quick and effective. And a successful mounted charge will have a decided effect in raising the morale and aggressive spirit of the troops engaged.

While most of you are probably familiar with the organization of a troop of cavalry as given in the Tables of Organization, I wish to mention a few facts in regard to it.

The troop is always formed in single rank, and is divided into four platoons, two being commanded by lieutenants and two by sergeants. The strength of these platoons is so near twenty men, with a troop at war strength, that it will be accurate enough for all purposes to consider a platoon as twenty men in the solution of problems.

The platoon is divided into two squads, the squad consisting of two or three sets of fours. Therefore it will not be sufficiently definite in the solution of a problem to say that a squad of cavalry is sent without stating how many men are in the squad. At any time that a detachment less than a platoon is made it is better to say "a sergeant (or corporal) and so many men" are sent.

When the troop dismounts to fight on foot, usually three men of each set of fours dismount, the fourth staying mounted and holding the horses of the other three. This gives three fourths of the men dismounted with rifles. The guidon sergeant takes charge of the led horses and can conduct them to any point the captain may designate, usually to some cover as near the dismounted troop as practicable. After dismounting to fight on foot in this manner the led horses may be readily moved at any time, in any

direction. When it is stated that a troop is dismounted to fight on foot this is what is usually understood unless, something to the contrary is stated.

If for any reason it is not necessary to have three fourths of the troop dismount, or if on a trail too narrow to lead the horses in fours and they must be led, the odd numbers only in each four may be dismounted to fight on foot, the even numbers staying mounted, and holding the horses of the odd numbers.

When it is desirable on the other hand to get as many men as possible on the firing line, practically the whole troop may be dismounted to fight on foot. The troop must first be taken to the place where the horses are to stay, for in this case they cannot be moved afterward. The horses are tied in pairs, the head of one horse to the cantle of the saddle of the other. When tied in this way one or two men can, if necessary, look out for the horses of the whole troop, putting practically every rifle on the firing line.

Having dismounted and secured the horses in this way the horses can not be moved, but there is no other objection to this method. I have seen it tried with the horses of a militia troop, hired for the camp, and they stood quietly enough for one man to look out for the horses of a troop. Other methods of securing the horses when they will not have to be moved are to link them in a circle or to have one man dismount and hold a number of linked horses. The main point I want to bring out is that practically all the men may be put on the firing line if the horses can be left in one place, with no probability of having to move them.

It is usual to speak of the horses as "mobile" if only one half to one fourth of the men are dismounted and the horses can be moved if necessary, while it is said that the horses are "immobile" if one of the other methods is used.

When the troop is acting alone it is usually necessary to leave a guard for the led horses; when the troop is in squadron the squadron commander or some higher commander provides for the protection of the led horses of the squadron if they are consolidated.

When the troop charges mounted the attacking line may be formed either in close order, boot to boot, or as foragers. The charge in close order is used against formed bodies of cavalry; the saber is habitually used in the charge in close order, for the pistol would be almost as dangerous to troop using it in this formation as to the enemy. At one time, however, the use of the pistol was contemplated in the charge in close order, and pistol practice included practice at targets placed in front and fired at by a troop advancing straight toward the targets at a gallop. The number of accidents in this practice helped to convince cavalry officers that the pistol is not suited to the charge in close order. The saber is used as a thrusting weapon, not for cutting. In the latest manual of saber exercise all cuts are eliminated.

When the troop is moving out to make a charge practically no commands are necessary. The captain takes his place in front of the troop and it follows him. Usually the trot is taken first, then the gallop, gradually increasing the gait, keeping in line and closed in on the center, until about 50 or 75 yards from the enemy when the command "Charge" is given and the horses go at full speed, the men yelling.

The cavalry of all foreign nations charges formed bodies of cavalry in double rank. They think this double rank formation essential for the charge and therefore make double rank the habitual formation for the cavalry. The experimental Cavalry Service Regulation now being tested for our cavalry provide for a double rank formation with a horses length,

about three yards, between ranks. In the solution of problems you will not have to decide whether single or double rank is better for the charge against cavalry, for there is no provision for a double rank formation in the old C.D.R., which we will use.

When the charge is made as foragers the attacking line is formed with intervals of three yards between troopers. In approaching the enemy at a trot and gallop the men keep in a general line, but at the command "Charge" all attempt to keep in line is abandoned and the men charge in couples at full speed.

The charge as foragers is principally used against artillery and wagon trains, but may also be used against a dismounted firing line as I will explain more fully when we take up the attack against infantry. In the charge as foragers the pistol is habitually used, but the saber may be used. The pistol is not used as a long range weapon; instead the trooper comes as near to putting it against his opponent as possible, for at a distance the chance of hitting is not great.

The pistol is also valuable for use by patrols when hostile patrols are met and attacked. The attack of one patrol against another is apt to be a good deal like a charge as foragers, and the pistol would generally be more effective than the saber. In the pursuit also the pistol may often be used to advantage, for a bullet from a pistol may overtake a man running away when he could not be reached by a saber.

In the line of file closers of a troop are two sergeants, called principal guides. The drill regulations (par. 526) state that these principal guides are the "ground scouts," and it is their duty to precede the troop whenever it makes a mounted charge, to reconnoiter the ground. No orders need be given these principal guides in most cases; it is intended that whenever the commands or orders of the captain in-

dicating a charge the ground scouts move out at once and precede the troop from 200 to 500 yards.

Of course this does not in any way prevent the captain from sending out reconnoitering patrols whenever he considers it necessary to reconnoiter any piece of ground. But if a charge is ordered it may be assumed that these ground scouts immediately precede the troop, and that they will join the nearest flank of the troop and take part in the charge without any specific orders to do so.

The necessity for reconnoitering the ground immediately ahead of a body of cavalry that is to charge to see if it is passable seems self-evident, but there are numerous cases in history where disaster has followed failure to take this precaution. And to show that neglect of this kind is still possible, and still has the same results, I will read an extract from the report of General French on the operations of the British army in Belgium and northern France in August of this year. The report is given in the *K. C. Star* of Sept. 10th, in quotation marks, so is authentic I assume.

Wire Stopped Cavalry

“About 7:30 in the morning General Allenby received a message from Sir Charles Ferguson, commanding the Fifth Division, saying he was very hard pressed and in urgent need of support. On receipt of this message General Allenby drew in his cavalry and endeavored to bring direct support to the Fifth Division.

“During the course of this operation General De Lisle of the Second Cavalry Brigade thought he saw a good opportunity to paralyze the further advance of the enemy's infantry by making a mounted attack on his flank. He formed up and advanced for this purpose, but was held up by wire about five hundred yards from his objective and the Ninth Lancers and

and the Eighteenth Hussars suffered severely in the retirement of the brigade.”

The flanks of a cavalry command must of course be protected, but no attempt has been made to make this service automatic. Combat patrols are sent out by any troop or squadron that has an exposed flank, but they must be specially ordered out by someone in each case. This is necessarily so, because no two cases are alike and it would be impossible to prescribe even the strength of such patrols without knowing the particular situation.

The commander of any body of troops, no matter how large, may provide for flank protection, and on the other hand no commander of a component unit of a body of troops is justified in leaving his flank uncovered because it is, or he thinks it is, someone else's business to provide flank protection.

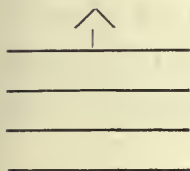
When the troops acting alone charges mounted it is usually formed in two lines, an attacking line and a support. The support does not usually follow directly in rear of the attacking line, but is echeloned in rear of one flank, following the attacking line at about 80 yards and charging in the manner that will best support the attack.



A second line or support following directly in rear of the first is of little value. It merely takes away

men who could be used to more advantage in the first, or attacking line. After the first line hits the enemy it either drives him from the field or engages in a melee forming an obstacle through which a second line in rear could not charge effectively.

The troop may charge in one line, without a support, or in column of platoons, or even in column of fours. A platoon may also be detached to charge an enemy in flank, instead of following as a support.



The use of a platoon detached to make a flank attack is considered sufficiently important to have a special command for this in the Tentative C.D.R. The captain merely commands "First Platoon Flank Attack" and "the designated platoon at once moves

out and is conducted so as to fall opportunely on the enemy's flank."

When a troop is acting alone it is usually on some mission of reconnaissance, as for instance, a contact troop. Time is an important element, so when its reconnaissance is stopped by hostile patrols or a hostile troop they must be attacked and driven back if possible. Whenever possible the mounted charge will be used, for reasons already given. When this is not practicable dismounted action is used, and it may be advantageous to combine a dismounted attack with a mounted attack in flank. With as small a body as a troop it is usually, however, better to keep the troop together, either mounted or dismounted.

A question that sometimes comes up in regard to a detached troop or squadron is as to how close a body of charging hostile cavalry can be and still leave enough time to dismount and stop the charge by rifle fire.

If the ground is such that the extended gallop can be kept up, half a mile can easily be covered by the charging cavalry in two minutes. A troop can dismount and open fire in two minutes, and may stop the charge; but if the distance is less than one half mile it is extremely doubtful whether the fire would be sufficiently rapid and well directed to stop the charge. Therefore, if the distance is less than half a mile, the hostile cavalry is moving at a gallop, and the ground between the two bodies of cavalry is entirely open, with no obstacles to delay the charge, it would usually be a mistake to attempt to dismount. Under these conditions the charge should be met by a mounted charge, or some method other than dismounting taken to avoid it. Various conditions may modify this, as for instance, broken or difficult ground between the two bodies of cavalry, the charging cav-

alry not moving at a gallop, or anything to indicate that the ground would not be covered rapidly.

The C.D.R. (par. 672) gives as the usual formation of a squadron for the mounted charge, when acting alone, two lines, an attacking line and a support, which follows about 80 yards in rear of one flank of the attacking line and charges to support the attack, in whatever manner best suits the situation. Each troop in the attacking line is complete—that is, a troop in the attacking does not ordinarily hold out a platoon.



Or three lines, the attacking line and support being formed as when there were only two lines, while a reserve follows in rear of the opposite flank from the support. Each troop in the attacking line is complete, but the reserve and the support may be taken from the same troop.

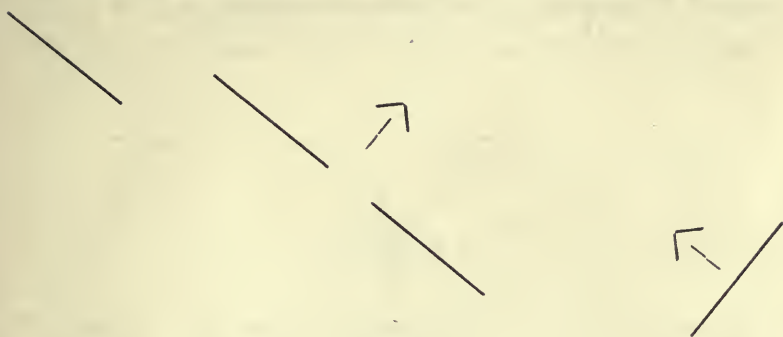


Of these two formations, that in two lines is preferable in most cases, the troop on the opposite flank from the reserve looking out for its own flank, by the use of combat patrols or by detaching a platoon if necessary. An echelon in rear is not the only method of protecting the flank; combat patrols are always used, and a platoon may be in front of a flank instead of in rear.



This attack in two or three lines, each under a separate commander, is somewhat similar to the so-called "normal attack" for infantry. If the impression is gained that all mounted attacks are made by cavalry in this formation, it is wrong. There is no such thing as a "normal attack" for cavalry any more than there is for infantry. No two situations will ever be exactly the same, and each requires different treatment.

The drill regulations do, however, limit one to this deployment, and there are many situations where it would not be the most suitable. A formation for attack that would often be used is to detach one troop to make a charge from one direction, while the other three troops, under the major attack from a different direction.

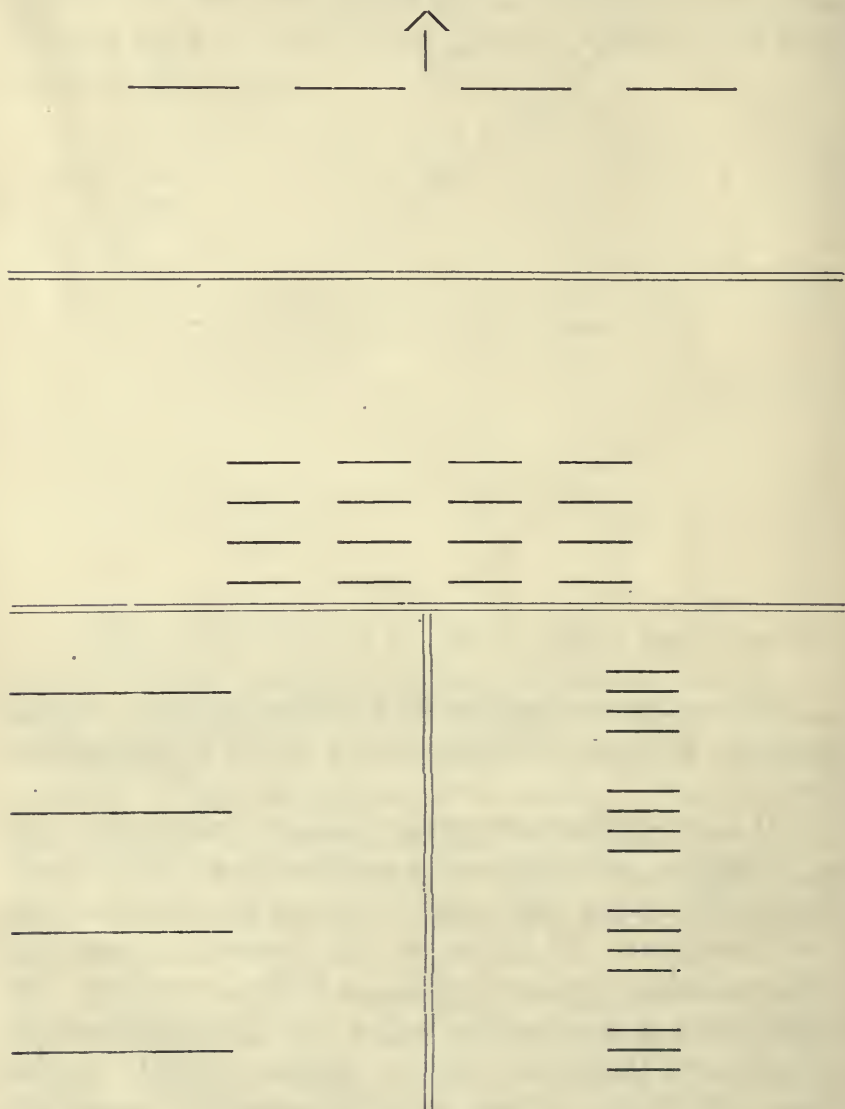


This is sometimes called a “Wing Attack” to distinguish it from the line attack of the Drill Regulations.

It corresponds somewhat to the enveloping attack of infantry and has many advantages. It is much more difficult for the enemy to meet an attack from two directions. If defeated his defeat is more apt to be decisive, for his retreat is difficult and on the other hand if we are defeated our natural lines of retreat are divergent which makes pursuit by the enemy difficult. If one wing can move to its position under cover and its attack comes as a surprise, the advantage is of course greater. And it is better still if both can. It would usually be a mistake to divide

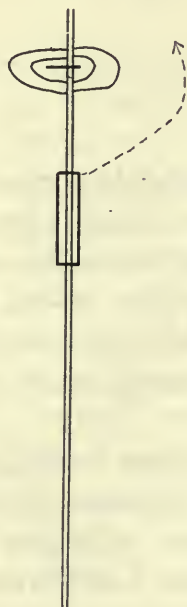
into two wings of equal strength. Each wing provides its own support, and covers its own flank.

The squadron may also charge in one line, led by the major in person, in line of platoon columns, in column of troops or in column of platoons.



The squadron can also make use of a combination of mounted and dismounted action, and might in fact,

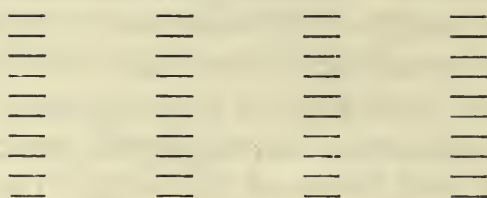
be forced to do so. If the enemy is advancing rapidly and the main body is still stretched out on the road the advance guard can often dismount and fire from some position and from a supporting point for the rest of the squadron, which would attack mounted from one or both flanks of this supporting point.



The squadron commander would ordinarily be with the advance guard, and could reinforce it if necessary, and indicate to the advance guard commander that this kind of action is needed.

In the approach, after the enemy is known to be near, a line of column at deploying intervals is generally considered best, with the flanks covered by combat patrols.

LINE OF FOURS



If it is not intended to make use of the advance guard to hold a supporting point by dismounted fire, any portion of it not actually split up into patrols would now join the main body, the squadron being covered by patrols only, in most cases. The advance guard being usually small most of it would be needed for patrolling.

Of course advantage must be taken of the ground to make a covered approach, especially if under fire, and the formation best suited to the ground would be taken. It is generally a mistake to advance too fast, until after the actual formation for attack has been made. The patrols need time for reconnaissance, and faulty dispositions are apt to be made if they are not given sufficient time. Also the horses are less apt to be in good charging condition if the approach is hurried unnecessarily.

In crossing ground swept by fire formations similar to those used by infantry are used, troops moving at a gallop. An irregular line of columns is about the best formation for going from cover to cover. If individual skirmishers at wide intervals are used they should not go in lines, but irregularly. It is not necessary to dismount every time fire is encountered.

If conditions are such that neither mounted action alone nor a combination of mounted action and dismounted action can be used to advantage, the squadron attacks dismounted, if its mission calls for an attack. If there is a chance to make use of the mobility by having horses it should not be neglected. For instance, the enveloping attack may gain time by moving as far as practicable mounted. In fact it is a general principle to get as close as practicable mounted.

In a general way the principles of the infantry attack govern, but the horses must be kept under cover and a guard provided for them.

Whether the horses should be kept mobile or not is a question always. They will be mobile, three fourths of the men dismounting, unless otherwise ordered. If there is such good cover for them that the guard can protect them without their having to be moved it is a great advantage to get as many men as possible on the firing line. But there is the decided disadvantage that mounting up afterwards is much slower. The horses cannot follow the progress of the action at all, and they are of course harder to protect. If they are liable to come under artillery fire it is especially bad to have them immobile, for the only thing to do in that case would be to move. These various points have to be considered and each case decided on its merits.

In an attack to get possession of a bridge held by dismounted hostile cavalry, for instance, the horses might safely be left immobile, taking every possible rifle into the attack.

But where an immediate pursuit is important it is an advantage to have the horses mobile so they can be brought up promptly.

The Drill Regulations prescribe that a regiment, or any other body of cavalry composed of several

squadrons, charges, as a rule, in three lines. The attacking line consists of at least half of the entire force, and it charges as one line. The support consists of from one fourth to one third of the whole force and usually follows one flank of the attacking line, under a separate commander, and charges to support the attacking line. The reserve consists of the remainder of the troops, under a separate commander, but is only used under the direct orders of the commanding officer of the whole force.

In this formation a regiment might have six troops in the attacking line, a squadron in the support, and two troop in reserve.



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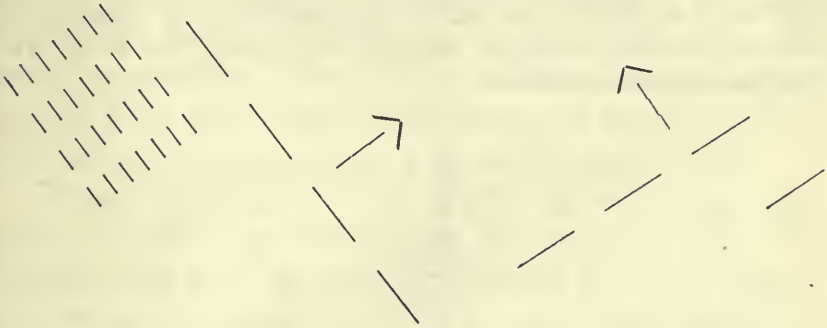
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This is a kind of normal attack, which often cannot be used to advantage with a regiment.

The "Wing Attack" has the same advantages as with the squadron, it is if anything more applicable to the regiment. With a force the size of a regiment it would usually be advantageous to attack from two directions; this could readily be accomplished by having a major with one squadron attack from one direction, while the colonel with the other two squadrons, forming the other wing, attacks from another direction.

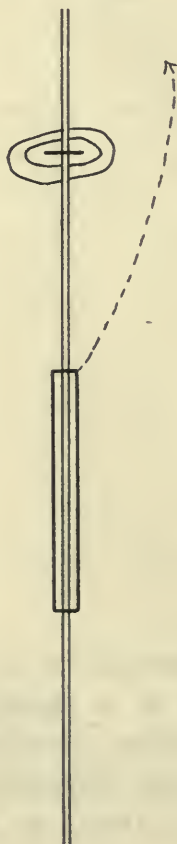


The major commanding a wing conducts his squadron very much as a squadron acting alone is conducted. The colonel conducts the other two squadrons in the proper direction, and has a major charge with as many troops as seems best. If the

colonel can determine the proper number for this line he gives the major this number of troops only, and merely directs him to charge, the other troops forming the reserve, and also support the attacking line if necessary.

If the major has to be given his orders when the colonel cannot determine positively the number of troops that should charge, nor whether the reserve will be in position to support the attacking line or not, the major is simply given a squadron and one or more troops attached, and makes his attack very much as a squadron acting alone would, providing his own support.

The use of a supporting point, held by the advance guard, using fire action, while the rest of the regiment attacks mounted, on one or both flanks of the supporting points, would be similar to that described for a squadron.



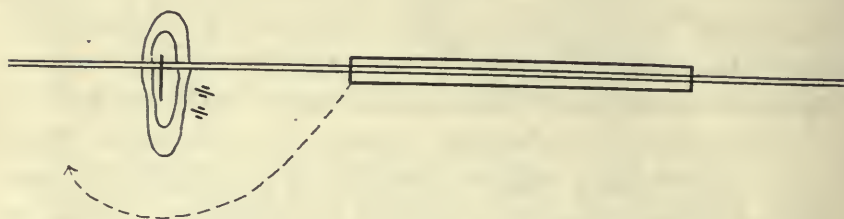
The machine guns would be with this supporting point. If this use of the advance guard was foreseen the machine guns would be ordered to join the advance guard. If this had not been foreseen they would be ordered up promptly, and as all the men of the machine gun troop are mounted it could get into action very quickly. It may at times be necessary for the advance guard to fall back to a good supporting point, but as it usually has considerable distance from the main body this should cause no trouble.

Whether the advance guard and machine guns hold a supporting point or not it is desirable to get the machine guns into action if possible. Usually they would be kept together so as to avoid having too many lines of fire to interfere with the movement of the mounted units, and a position on a flank is most likely to give them a chance to do effective work.

When the charge is successful in any case the pursuit is taken up by some of the troops, but it is necessary to get together a formed body of troops as promptly as possible, ready to repel any fresh hostile troops that may appear. There is some difference of opinion as to the possibility of reforming promptly troops that have charged and been engaged in the melee. All agree that they cannot be formed under fire, so if there is fire it would not be attempted, but if there is no fire it would always be attempted. The better trained and disciplined the troops the better the chance of reforming promptly.

The formation for attack by bodies of cavalry larger than a regiment differs from that of a regiment chiefly in the use of the horse artillery that usually accompanies them. The "wing attack" would generally be used, and would be especially applicable when advancing on more than one road. If a supporting point is held by the advance guard, the attacking troops moving by one or both flanks of this

supporting point, the horse artillery would generally be at this supporting point, and usually the machine guns of the regiments that are expected to charge would be sent to this supporting point also.



The troops holding this supporting point would keep up their fire as long as it could assist the charging troops. If the charge is successful they would be available to use as part of the reserve, mounting promptly. If the charge is repulsed the supporting point, still held by dismounted fire, covers the rallying of the troops.

In case of repluse it is important that troops do not mask the fire of the artillery and machine guns in falling back, for the main dependence is on them at this time.

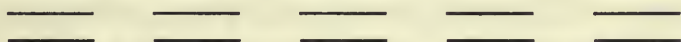
It will therefore usually be advisable to have some of the troops dismount, in the fight of a cavalry force larger than a regiment, in addition to making use of the horse artillery and machine guns. The nature of the terrain will also often make it necessary to use dismounted action by part of a large force, and if the enemy uses dismounted action he forces the dismounting of at least some men in most cases. General Bernhardt says that a force larger than our regiment

will seldom use mounted action alone, which seems true.

As far as practicable, in the use of fire action, the general plan for one or more supporting points, or pivots, would be made, whether the advance guard held such a position or not.

It would seldom happen that a force larger than a regiment, and opposed by cavalry, would find no use for mounted action. But if the terrain made mounted action entirely out of the question, and the mission called for an attack, the whole brigade or division should be dismounted, and the attack made, full use being made of the horse artillery and machine guns. In general the principles of the infantry attack would govern.

Even though there had been ample warning of the approach of the enemy, and troops have been formed up so that there is no necessity to have the advance guard hold a supporting point to cover the deployment, the horse artillery would always be brought into action if possible. Often the commander would do very little more than let the artillery commander know the general plan of attack and direct him to support it. If the artillery should take a position directly in rear of the charging line its fire would be so soon masked that it would be of very little value in supporting the attack. Cavalry moves too fast for such a position to be good.



The horse artillery, in a mounted cavalry combat, is usually kept together, for to divide it would make more difficult the concentration of fire on the most important target in the short time available, and would also cause the fire of some of the artillery to be masked soon by the cavalry. The artillery must go into action in the open, without any attempt to find concealed positions and use indirect laying; the time is too short for this. The target of the artillery is the hostile cavalry, there is no such thing as an artillery duel, though it may be necessary to assign a portion of the artillery to the task of keeping down the fire of the hostile artillery if it is inflicting losses on our cavalry. After the fire of the artillery is masked by the advancing cavalry, artillery fire can then be turned on the hostile artillery, until the pursuit begins.

Usually the cavalry and horse artillery will be separated, and this will make necessary a special guard or support for the artillery. The machine guns of all regiments that are to attack mounted would usually join the artillery support. The commander of this artillery support is not under the orders of the artillery commander, but consults with him. The conduct of this artillery support would in most cases be the same as that of an infantry support for artillery. Mounted patrols would be used, but the men who are expected to actually drive back any attacking parties would usually be dismounted, and posted where they could bring an effective fire on such parties without interfering with the fire of the artillery. Usually they would be somewhat to the flank and rear of the artillery (par. 582, I.D.R.).

A mounted reserve might be held in rear of a long line of artillery to go quickly where needed, but its use would be to reënforce by fire in most cases. Should the artillery support charge, mounted or dismounted, it must be careful not to mask the fire of the artillery either in charging or if driven back, and it should not be led into a pursuit that would leave the artillery unsupported.

Of course no special support for the artillery would be detailed unless actually needed; that general principle applies to artillery at all times. But it is so often necessary to detail supports for the horse artillery with a cavalry division that the French and Russian regulations provide for the permanent detail of such supports.

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The question of the position of the cavalry commander often comes up in the solution of problems. It is so necessary for a cavalry commander to see the ground and if possible the enemy, that it is an accepted principle that he should be well forward—with the advance guard as long as the march formation is kept up; as far forward as he can be under cover of patrols when the march formation is ended. But he will often have to make his dispositions, based on the reports of patrols and the map.

To have the subordinate commanders with him so they can receive their orders personally and see the situation as the commander sees it is an advantage. In some cases it will be possible to do this, but a cavalry combat moves so fast that it will often be impossible. There is no established system of communication by agents as with the artillery; those commanders who are close enough will be given personal verbal orders; messages, preferably by staff officers will be sent to the others. A troop commander and sometimes a squadron commander can give commands; all higher commanders give orders, not commands, and these orders are usually verbal. The orders being verbal and transmitted by staff officers must be simple, complicated instructions will almost always miscarry.

Generally a commander does not lead a charge unless his whole command is in. A major, for instance would not lead the charge of three of his troops if he had held out a support of one troop. But if his whole squadron charges, or if the remaining troop forms part of the reserve under the colonel's orders, the major takes his place in the line of captains and leads the charge.

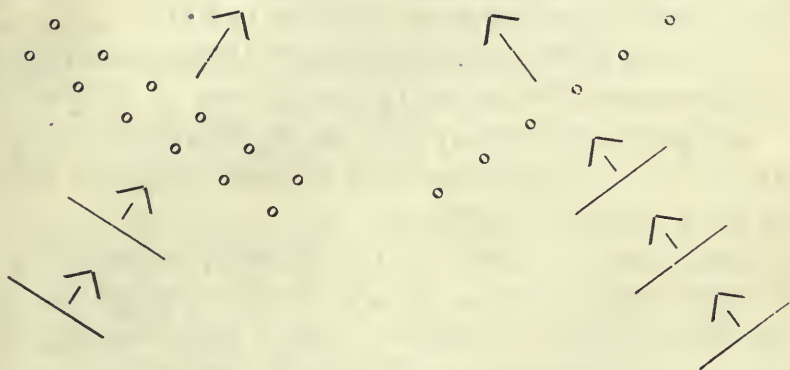
As to the mounted charge against infantry, the I.D.R. have this to say (par. 569): "A cavalry charge can accomplish little against infantry, even in inferior numbers, unless the latter are surprised, become panic stricken, run away, or can not use their rifles."

This is accepted as true, but it makes the charge against infantry rare, not impossible. There are numerous cases in history where the infantry have been surprised, became panic stricken, and was successfully charged by cavalry. In a pursuit this is especially likely to occur. If we should go into Mexico it seems quite possible that infantry that could be

charged by cavalry might be encountered. And in any general engagement some of the infantry does become demoralized at times, and there may be a chance to change this demoralization into a panic by an opportune charge.

When the infantry can be surprised, or is already demoralized, practically any formation may be used in the charge, the one that will get there the quickest being usually the best.

When, however, it is decided to make a charge against infantry which will use its rifles, the formation taken is important. A wing attack from two different directions, each wing having a first line of foragers, followed by other lines, some of which at least will be in close order, is generally accepted as the best formation.



The theory of this is that the line of foragers will draw the fire of the infantry, and furnish a certain

amount of protection to the troops following in rear. Whether such a charge will succeed or not depends to a great extent on the moral effect produced, and while endeavoring to produce the necessary moral effect, what is considered the least vulnerable formation is taken.

A similar formation is taken in charging artillery in action; approach from the flanks being always made if possible. The distance between lines should be about three hundred yards in order to prevent one shrapnel from striking two lines.

As the furnishing of special supports to artillery is avoided as much as possible, it is not at all improbable that an enterprising cavalry leader in a general engagement will on occasions find artillery without support. If there is infantry support, part of the charging force would devote its attention to the artillery and part to the support. Dismounted rifle fire could also often be combined with the mounted charge in such a case, the dismounted fire holding the attention of the support and making the chance of the charge coming as a surprise better.

If the artillery can be caught without support and with the pieces limbered, or in the act of limbering or unlimbering its only defense is the pistol of the men and the cavalry should be able to do great execution by a charge as foragers.

Carrying off guns after they are captured is, however, very difficult, for all hostile troops in the vicinity will try to recapture the guns and prevent their being carried off. Black says that military history shows more instances in which cavalry later lost the guns captured than those in which it succeeded in getting away with them. (Vol. II, p. 472.)

Because the *charge* against infantry or artillery with infantry supports is difficult, it by no means follows that cavalry cannot attack either when neces-

sary. It can use fire action dismounted, and has the advantage of great mobility on account of its horses. This mobility enables it, for instance, to get quickly to the position of a troublesome battery and then the best method of putting the battery out of business can be determined. And fire can be opened from several directions at once which is often very demoralizing.

Reconnoitering cavalry will, after driving in the hostile cavalry, strike the infantry covering detachments of an army. The accomplishment of its mission will often call for an attack on these covering detachments, to drive them in if possible, or else to develop their strength and positions. Cavalry with horse artillery and machine guns, in addition to the rifles of the men, is entirely competent to make such attacks when necessary. A dismounted attack would be made, following the general principles of the infantry attack, but full use should be made of the greater mobility resulting from having horses. On account of this mobility, dispersion is not the unpardonable sin when cavalry attacks dismounted that it might be under similar circumstances with infantry. A turning or enveloping movement can be made by a part of the command, using their horses to make the movement, where a similar movement by an infantry force would be entirely too risky. In fact, this ability to move rapidly to a weak flank of the enemy and there attack mounted or dismounted according to conditions as found, goes a long way toward compensating cavalry for the loss of horseholders in a dismounted combat.

The horses of the cavalry must be guarded whenever it fights dismounted, but when opposed to infantry alone the guards can be made quite small, for small patrols are about all that the infantry commander is likely to send against the led horses. This al-

allows more men to be put on the firing line than would be possible in a dismounted fight against cavalry.

Defensive Position

When it is necessary for cavalry to take up a defensive position there are two rather distinct situations. If a stubborn resistance is expected, as for instance, to hold a position until relieved by infantry, as many men as possible are dismounted, the horses often being left immobile, some distance to the rear, and with small guards. The occupation of the position would, in such a case be similar to its occupation by infantry. Should withdrawal become necessary in this situation it is of course difficult, but not impossible. Detachments hold strong points, while the others fall back to the horses. These detachments would usually be sacrificed, but there is a very decided tendency on the part of an attacking force to devote all its time to these detachments, forgetting the importance of immediate pursuit.

When the defense is to be only temporary, as for instance in a delaying action, the horses are kept as close as practicable, under cover, and would generally be kept mobile. The deployment would be on a broad front, with small reserves, a heavy fire being opened at long range.

None of these formations and methods are intended as ready made solutions for any problem, they are merely to give an idea of ways in which cavalry may be handled. The use of cavalry in combat is so entirely dependent on the terrain that no two situations could ever be met in the same way.

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